



ecology and environment, inc.

International Specialists in the Environment

BUFFALO CORPORATE CENTER

368 Pleasant View Drive, Lancaster, New York 14086
Tel: 716/684-8060, Fax: 716/684-0844

911748

September 29, 1995

Ms. Sonia Vega
U.S. Environmental Protection Agency, Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604

Re: Van Tran Electric Corporation (Van Tran)
Vandalia, Illinois
CERCLIS ID No.: ILD981093628
Focused Site Inspection Prioritization
Contract No.: 68-W0-0037
TDD No.: T05-9503-244

Dear Ms. Vega:

Enclosed are the final Focused Site Inspection Prioritization (FSIP) report and enclosures for the Van Tran Electric Corporation (Van Tran) site, in Vandalia, Illinois. Draft copies of this report were submitted previously to you and to Mr. Tom Crause of the Illinois Environmental Protection Agency (IEPA).

The final FSIP is presented in two volumes. Volume 1 contains the Site Evaluation Report (SER). Volume 2 contains the United States Environmental Protection Agency Recommendation Form for the site as Enclosure 1, and a transmittal memorandum and Hazard Ranking System (HRS) scoresheets as Enclosure 2.

Should you have any questions, please call me at 716/684-8060.

Sincerely,

Chad Eich
Ecology and Environment, Inc.

xc: Steve Skare, Ecology and Environment, Inc.
Tom Crause, IEPA



ecology and environment, inc.

International Specialists in the Environment

BUFFALO CORPORATE CENTER

368 Pleasant View Drive, Lancaster, New York 14086

Tel: 716/684-8060, Fax: 716/684-0844

September 15, 1995

Ms. Sonia Vega
U.S. Environmental Protection Agency, Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604

Re: Van Tran Electric Corporation (Van Tran)
Vandalia, Illinois
CERCLIS ID No.: ILD981093628
Focused Site Inspection Prioritization
Contract No.: 68-W0-0037
TDD No.: T05-9503-244

Dear Ms. Vega:

Ecology and Environment, Inc., (E & E) has prepared the enclosed Site Evaluation Report (SER) for the above-referenced site. Preliminary contaminant assessment analytical data are included in Appendix A of the SER. Appendix B contains Envirodyne Engineers, Inc., (EEI) 1987 sediment sample analytical data. Appendix C contains 1995 soil sampling analytical data. Appendix D contains pertinent references used in the preparation of this SER. Per your request, references not provided include: documents that are currently available within U.S. EPA files; copyrighted documents that are currently available in E & E's library; maps produced by either the United States Geologic Survey or the Illinois State Geologic Survey; and documents that are created by various state agencies for public use.

E & E reviewed available information and prepared a preliminary Hazard Ranking System (HRS) score for the Van Tran site using PREscore Software (Version 3.0), Publication No. 9450.2200, dated August 1994. Based on E & E's findings, the preliminary HRS score for the Van Tran site is less than 28.50. In addition, the Illinois Environmental Protection Agency (IEPA) is currently conducting a removal action at the site. Therefore, E & E recommends that the site receive a low priority designation, until satisfactory remediation is achieved by the parties involved.

The U.S. Environmental Protection Agency (U.S. EPA) Recommendation Form is included in Enclosure 1. The Van Tran site's preliminary HRS score is documented in a transmittal memorandum and the HRS scoresheets presented in Enclosure 2.

Ms. Sonia Vega
September 15, 1995
Page 2

If you have any questions, please call me at 716/684-8060.

Sincerely,

A handwritten signature in cursive script, appearing to read "Chad Eich", followed by a stylized flourish.

Chad Eich

Enclosures (2)

xc: Tom Crause, IEPA
Steven Skare, E & E Program Leader

**FOCUSED SITE INSPECTION PRIORITIZATION
SITE EVALUATION REPORT**

7.2
9/29/95

**VAN TRAN ELECTRIC CORPORATION
1505 VAN TRAN AVENUE
VANDALIA, ILLINOIS**

CERCLIS ID NO.: ILD981093628

Prepared for:

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
SITE ASSESSMENT SECTION
77 West Jackson Boulevard
Chicago, Illinois 60604**

Date Prepared: September 29, 1995
U.S. EPA Region: 5
Contract No.: 68-W0-0037
Technical Direction Document No.: T05-9503-244
Prepared by: Ecology and Environment, Inc.
Chad Eich
E & E Program Leader: Steven Skare
Telephone No.: (312) 663-9415



ecology and environment, inc.

International Specialists in the Environment

BUFFALO CORPORATE CENTER 368 Pleasant View Drive, Lancaster, New York 14086
Tel: 716/684-8060, Fax: 716/684-0844

recycled paper

0957
W. S. C.

TABLE OF CONTENTS

<u>Section</u>		<u>Page</u>
1	INTRODUCTION	1-1
2	SITE DESCRIPTION AND HISTORY	2-1
3	PREVIOUS INVESTIGATIONS	3-1
4	MIGRATION AND EXPOSURE PATHWAYS	4-1
	4.1 GROUNDWATER MIGRATION PATHWAY	4-1
	4.1.1 Geology and Soils	4-1
	4.1.2 Groundwater Releases	4-2
	4.1.3 Targets	4-2
	4.2 SURFACE WATER MIGRATION PATHWAY	4-3
	4.3 SOIL EXPOSURE PATHWAY	4-4
	4.4 AIR MIGRATION PATHWAY	4-5
5	SUMMARY	5-1
6	REFERENCES	6-1
 <u>Appendix</u>		
A	1987 PRELIMINARY CONTAMINANT ASSESSMENT ANALYTICAL DATA	A-1
B	ENVIRODYNE ENGINEERS, INC., SEDIMENT SAMPLE ANALYTICAL DATA	B-1
C	IEPA 1995 SOIL SAMPLE ANALYTICAL DATA	C-1
D	REFERENCE MATERIALS	D-1

LIST OF FIGURES

<u>Figure</u>		<u>Page</u>
2-1	Site Location Map	2-4
2-2	Site Features Map	2-5

1. INTRODUCTION

The Ecology and Environment, Inc., (E & E) Technical Assistance Team (TAT) was assigned by the United States Environmental Protection Agency (U.S. EPA), under Contract No. 68-W0-0037, Technical Direction Document (TDD) No. T05-9503-244, to evaluate the Van Tran Electric Corporation (Van Tran) site in Vandalia, Fayette County, Illinois. E & E performed Focused Site Inspection Prioritization (FSIP) activities to determine whether, or to what extent, the site poses a threat to human health and the environment. This FSIP report presents the results of E & E's evaluation and summarizes the site conditions and targets pertinent to the migration and exposure pathways associated with the site. Background information was obtained from a Preliminary Assessment (PA) conducted by the Illinois Environmental Protection Agency (IEPA) in 1985, a General Assessment of the Site Investigation Report prepared by Envirodyne Engineers (Envirodyne) in 1987, a Preliminary Contaminant Assessment Report prepared by Baker/TSA in 1988, U.S. EPA files, and IEPA files.

This report is organized into six sections, including this introduction. Section 2 describes the site and provides a brief site history. Section 3 provides information about previous investigations conducted at the site. Section 4 provides information about the four migration and exposure pathways (groundwater migration, surface water migration, soil exposure, and air migration). Section 5 summarizes site conditions. References used in the preparation of this report are listed in Section 6.

2. SITE DESCRIPTION AND HISTORY

The Van Tran site is located at 1505 Van Tran Avenue (U.S. Route 40), approximately 1 mile east of U.S. Route 51, in Vandalia, Fayette County, Illinois (Section 8, T. 6 N., R. 1 E.). The coordinates for the site are latitude 38°58'36" north and longitude 89°06'43" west (IEPA 1985). The site location is shown on Figure 2-1.

The approximately 3-acre site is located in an industrial area within the corporate boundaries of Vandalia, Illinois. It is bordered by commercial businesses to the east and west, an Illinois Central Gulf (ICG) Railroad right-of-way to the north, and U.S. Route 40 to the south (Baker/TSA 1988).

Van Tran Electric Corporation formerly manufactured electrical transformers at the site. The parent company is the Van Tran Electric Corporation in Waco, Texas (IEPA 1985). When the facility was operational, it consisted of one main on-site building, a second side building, two sheds, and four outdoor tanks used for storage of transformer oil. Empty drums of transformer oil were stored in a drum storage area north of the northwest storage shed. An on-site evaporation pit was used for the disposal of spent solvents and paint waste (Moss 1988). Four monitoring wells and four piezometers are located on the site. The monitoring wells were installed in 1987 by Baker/TSA, Inc., (Baker/TSA) of Merrillville, Indiana, a technical contractor/consultant to Van Tran Electric Corporation. It is not known when the piezometers were installed, or by whom. Site features and monitoring well and piezometer locations are shown on Figure 2-2.

The Van Tran site is not fenced and access is not restricted (Gross 1995a). The site is well vegetated. The site topography has a gradual slope to the east and south. The northern portion of the site is higher in elevation than the rest of the site due to a bermed area located south of the railroad right-of-way (Moss 1988). Surface runoff drains to a series of drainage ditches on the eastern and western boundaries of the site. The drainage ditches flow under U.S. Route 40 via culverts on the eastern and western sides of the site and converge at a point east of the site, along U.S. Route 40 (Baker/TSA 1988). The ditch then flows south

along the ICG Railroad tracks to an intermittent tributary of Town Branch Creek, the nearest surface water body. Town Branch Creek is located approximately 0.5 mile south of the Van Tran site (USGS 1974).

The Van Tran Electric Corporation owned and operated the site from 1962 to September 1987, and manufactured 5- to 5,000-kilovolt electrical transformers. Van Tran also operated a warranty repair operation for its products at the site. Prior to 1976, the electrical transformers manufactured at the site contained Askeral, a transformer oil that contained polychlorinated biphenyls (PCBs). In 1976 Van Tran informed the U.S. EPA that the use of Askeral at the site was being discontinued (IEPA 1985b). Uses and ownership of the site prior to 1962 are not known. Van Tran remains the current site owner (Baker/TSA 1988).

PCBs were never generated on site as waste products. The release of PCBs to the site was the result of improper handling of drums of Askeral (Moss 1988). Empty drums of Askeral were stored in a drum storage area north of the northwest storage shed. Reportedly, the drums were not completely empty and the remaining Askeral was accidentally released to the surrounding soils (Moss 1988).

Waste liquids, sludges, and spent solvents generated during painting, stripping, and cleaning operations conducted as part of the transformer manufacturing processes at the site were disposed of on site in an unlined surface impoundment being used as an evaporation pit. This practice continued for approximately 13 years, prior to 1985. The circular evaporation pit was approximately 8 feet in diameter and 3 inches deep. Hazardous wastes that were disposed of in the evaporation pit were spent ignitable nonhalogenated solvents, including methyl ethyl ketone (MEK), xylene, and toluene (Moss 1987). Disposal of materials into the evaporation pit began before the Resource Conservation and Recovery Act (RCRA) regulations were promulgated; therefore, the Van Tran Electric Corporation never submitted a Part A RCRA Permit Application or a Notification of Hazardous Waste Activity.

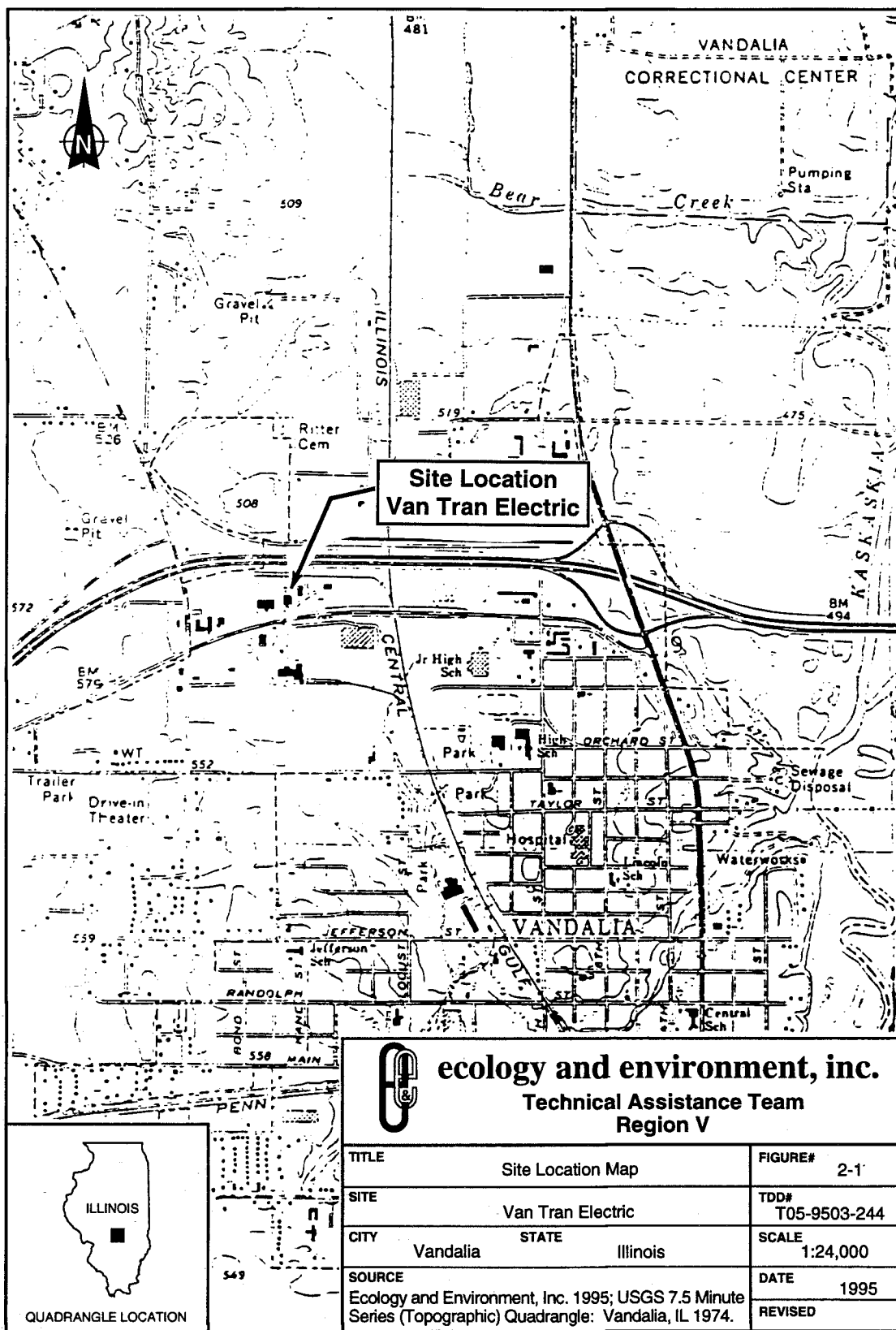
Reportedly, PCBs were not disposed of in the evaporation pit (Baker/TSA 1988). However, it is possible that the drums used to collect the spent solvents prior to their disposal in the evaporation pit were the same drums that had previously contained the PCB-contaminated transformer oil. Any remaining PCB residue would have entered the evaporation pit with the solvents. In addition, when Van Tran discontinued using the evaporation pit in 1984, the soil used to backfill it was taken from the drum storage area, which was contaminated with PCBs (Moss 1988). A spill of approximately 14,000 gallons of mineral oil, possibly containing PCBs, occurred in the central portion of the site in the summer of 1975. (Apparently, employees at the Van Tran facility were on strike at that time

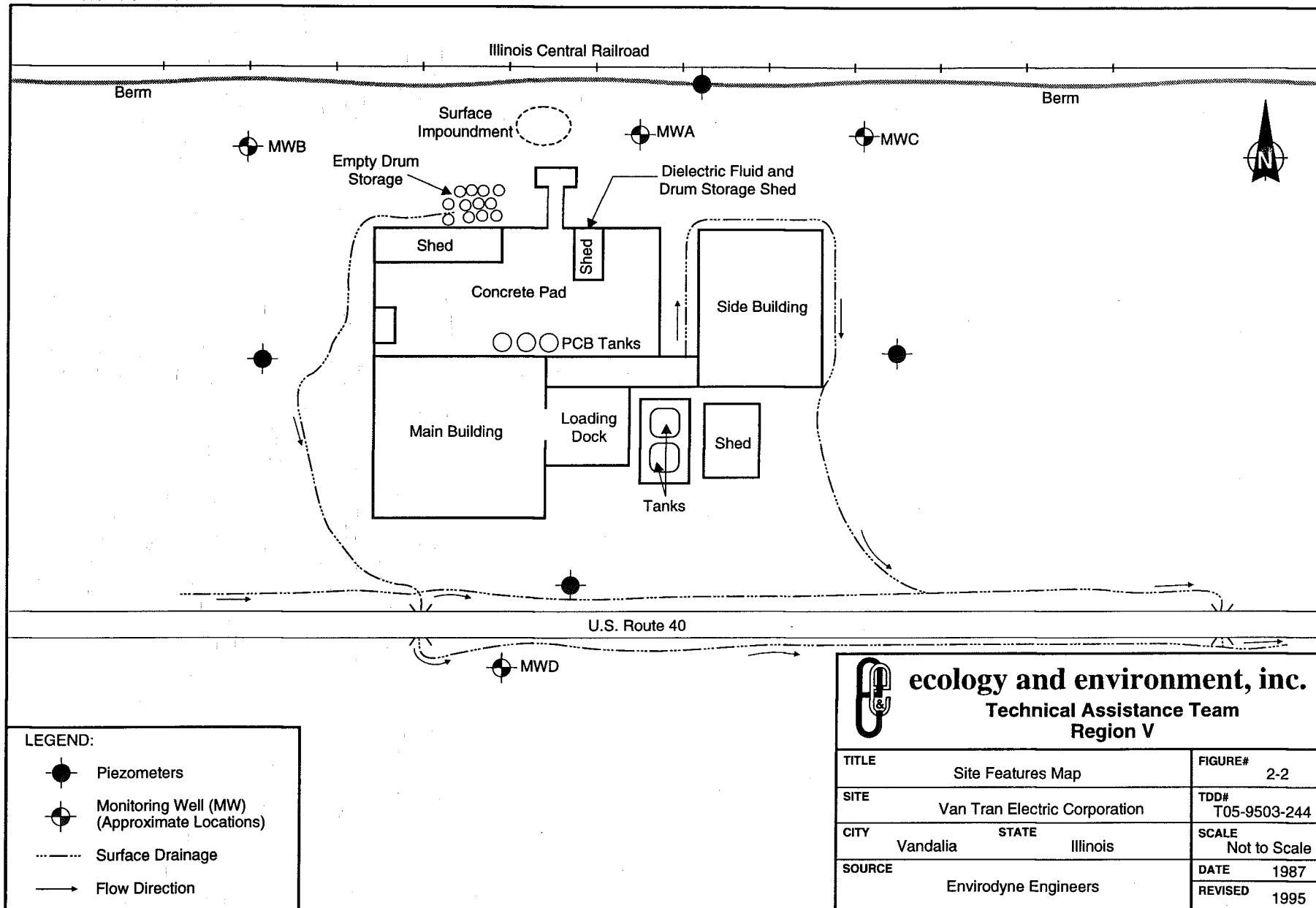
and deliberately opened the two storage tanks containing the mineral oil, which subsequently spilled onto the ground near the tanks [IEPA 1985b]]. No other waste disposal areas are known to exist on the Van Tran site (Baker/TSA 1988).

In June 1985 soil was excavated from the former evaporation pit area by Van Tran personnel without authorization or notification of IEPA. The soil was excavated to a depth of approximately 1 foot and stored on site in 55-gallon drums. The quantity of soil excavated, or number of drums generated, is not known (Baker/TSA 1988).

The Van Tran site is currently undergoing a state-funded cleanup action. It is the intention of IEPA to implement closure activities for the evaporation pit area and for the hazardous waste drum storage area (Gross 1993).

As previously stated, the Van Tran facility does not have RCRA permits, nor does it possess National Pollutant Discharge Elimination (NPDES) permits.





3. PREVIOUS INVESTIGATIONS

The Van Tran site was initially discovered when the IEPA conducted a site inspection in 1975 to observe Van Tran's methods of handling transformer oils containing PCBs. The site was evaluated in the form of a Preliminary Assessment (PA) prepared by Kenneth Page of the IEPA (dated April 1, 1985), which was submitted to the U.S. EPA (IEPA 1985b). The PA report recommended a medium-priority inspection for the site due to inadequate handling of materials containing PCBs.

In June 1985 IEPA conducted a site reconnaissance inspection of the Van Tran site. A surface impoundment/evaporation pit was discovered in the northern portion of the site that was being used to dispose of paint and solvent wastes (IEPA 1985). Van Tran personnel stated that the evaporation pit was approximately 8 feet in diameter and 3 inches deep. The evaporation pit had been used for approximately 13 years without any records being kept of the amount of wastes being disposed of (Moss 1988; Baker/TSA 1988). Xylene, toluene, MEK, and PCBs were suspected to have been disposed of in the evaporation pit (Baker/TSA 1988; Moss 1988). As part of the site reconnaissance, IEPA collected four samples of soil, waste product, and storm water from the area of the evaporation pit. The samples were analyzed for Target Compound List (TCL) compounds and Extraction Procedure (EP) Toxicity metals. Chemical analysis of the waste product sample indicated the presence of PCB Aroclor 1248 (26 milligrams per kilogram [mg/kg]), PCB Aroclor 1260 (18 mg/kg), MEK (21,000 mg/kg), xylenes (25,000 mg/kg), and toluene (37,000 mg/kg). Chemical analysis of one of the soil samples indicated the presence of PCB Aroclor 1260 (204 mg/kg), PCB Aroclor 1248 (17 mg/kg) xylenes (35,000 mg/kg), and MEK (4,000 mg/kg) (IEPA 1985a). None of the metals concentrations exceeded EP Toxicity regulatory levels in any of the samples. Disposal of materials into the evaporation pit began before the RCRA regulations were promulgated; therefore, the Van Tran Electric Corporation never submitted a Part A RCRA Permit Application or a Notification of Hazardous Waste Activity. Nevertheless, a notice of alleged violations of various provisions of Title 35 of the Illinois

Administrative code and the Illinois Environmental Protection Act was issued to Van Tran by IEPA on June 24, 1985 (Baker/TSA 1988).

In September 1985 Baker/TSA, Inc., performed a reconnaissance of the site to determine the current site conditions and to obtain background information. No other information regarding this investigation was provided (Baker/TSA 1988).

Between October 15 and 17, 1985, Baker/TSA conducted a preliminary site screening assessment of the Van Tran site to determine the nature and relative magnitude of soil contamination at the site. Two soil borings were advanced in the evaporation pit to a maximum depth of 8 feet below ground surface (BGS). Soil samples were collected at 1-foot intervals to the completion depth of the boring and analyzed for PCBs, benzene, toluene, xylene, MEK, lead, zinc, and cadmium. The following are the maximum concentrations of each analyte detected: PCB Aroclor 1254, 2,300 mg/kg; PCB Aroclor 1260, 440 mg/kg; PCB Aroclor 1248, 1,100 mg/kg; PCB Aroclor 1242, 72 mg/kg; PCB Aroclor 1232, 16 mg/kg; PCB Aroclor 1016, 46 mg/kg; xylene, 1,600 mg/kg; toluene, 340 mg/kg; benzene, 5 mg/kg; and MEK, 1,500 mg/kg (Baker/TSA 1988). PCBs were detected at every depth interval.

IEPA, and their contracted consultant, Envirodyne Engineers, Inc., (EEI) of St. Louis, Missouri, conducted a site reconnaissance at the Van Tran site on May 15, 1986. Following the reconnaissance, EEI submitted a work plan to the IEPA proposing additional site assessment activities at the site. Baker/TSA reviewed the work plan for Van Tran, and Baker/TSA's comments, in conjunction with the work plan, became the basis of a Consent Plan entered into by Van Tran and the IEPA on March 1, 1987 (Baker/TSA 1988). Site work began in April 1987. EEI performed the site investigation work for the IEPA, and Baker/TSA coordinated site activities for the Van Tran Electric Corp. On-site activities included: installation of four monitoring wells, surface and subsurface soil sampling, and collection of PCB wipe samples (see Appendix A for sample analytical results from the 1987 Preliminary Containment Assessment). Off-site groundwater sampling was not conducted at that time.

Groundwater, surface soil, and subsurface soil samples were collected and analyzed for TCL and Target Analyte List (TAL) chemicals. The samples were collected by Baker/TSA personnel, and the sampling events were overseen by EEI personnel. The wipe samples, collected from the concrete pad on which the transformer oil storage tanks were located, were analyzed for PCBs. PCBs were not detected in the groundwater samples. Lead and cadmium were detected in the groundwater sample at maximum concentrations of 0.07 milligrams per liter (mg/L) and 0.041 mg/L, respectively. 1,1,1-Trichloroethane was

detected in a groundwater sample collected from monitoring well MW-B at a concentration of 10 ($\mu\text{g/L}$) (Baker/TSA 1988). Analysis of the surface and subsurface soil samples indicated the presence of TCL/TAL chemicals, including volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), heavy metals, and PCBs. Analysis of the wipe samples indicated concentrations of PCBs up to 5,280 $\mu\text{g}/100$ square centimeters. PCBs and VOCs were also detected in soil/sediment samples collected from the two drainage ditches located on the east and west sides of the site (Baker/TSA 1988). Total PCBs were detected at a concentration of 320 mg/kg in the western drainage ditch at a depth of 1 foot and at a concentration of 410 mg/kg in the eastern drainage ditch, also at a depth of 1 foot, near the point where the ditch flows off site (Baker/TSA 1988).

IEPA and EEI also collected 12 sets of sediment samples from the on-site drainage ditches and Town Branch Creek. Each sediment sample was a composite of three to five discrete samples collected within a 10-foot reach of the ditch or stream at each sample location. The sediment samples were analyzed for PCBs (Envirodyne 1987a). Sediment sample locations are indicated in Appendix B. PCBs were not detected in the on-site sediment sample collected from a drainage ditch along the railroad tracks north of the site. PCBs were detected at a total concentration of 3.6 mg/kg in a sample collected from the same ditch at an off-site location northeast of the site. PCBs were detected at a maximum total concentration of 680 mg/kg in a sample collected from the drainage ditch on the southeast side of the site. The concentration of PCBs decreased to 5.4 mg/kg in samples collected at an unknown distance downstream. A sediment sample collected from the western drainage ditch, at the point where it flows off site under U.S. Route 40, was found to contain PCBs at a concentration of 4.2 mg/kg. The point where the eastern and western drainage ditches converge south of U.S. Route 40 and southeast of the site, was also sampled, and PCBs were detected at a total concentration of less than 1 mg/kg (EEI 1987). From that location, the drainage ditch flows south to an intermittent tributary of Town Branch Creek. The next two downstream sediment sample locations, in Town Branch Creek, showed no detectable PCB concentrations. The sample collected from the next downstream location had a total PCB concentration of less than 1 mg/kg, and the sample from the next downstream location had a total PCB concentration of 11 mg/kg. No PCBs were detected in the sample collected from the final sample, which was collected approximately 2 miles downstream of the site, near the confluence of Town Branch Creek and the Kaskaskia River (EEI 1987). IEPA indicated that any PCB contamination found in the sediment samples was not directly attributable to the Van Tran site (Gross 1995a).

A Screening Site Inspection (SSI) was conducted at the site by the IEPA on May 13, 1987. During the SSI site reconnaissance, IEPA observed that no liner was in place in the evaporation pit, and no access restrictions were in place to prevent contact with the waste materials. Drums of material that had been removed from the evaporation pit and drums of spent solvents were being stored in a shed in the north part of the site (Moss 1988). The SSI report indicated that although Van Tran did not file a RCRA Part A permit, the IEPA still considered the site a land disposal facility (IEPA 1987a). No samples were collected during the SSI (IEPA 1987a).

On July 23, 1987, the IEPA conducted a facility inspection at the site for compliance with groundwater monitoring requirements. During the inspection, IEPA noted that several of the four monitoring wells and four piezometers at the site were not located adjacent to the evaporation pit as was required. In addition, the only testing of the wells was for PCB contamination. Van Tran had failed to test for organic constituents as directed by IEPA. (IEPA 1987).

In May 1993 IEPA made the decision to fund the closure of the evaporation pit because the Van Tran Electric Corporation was failing to make progress with the remedial work. This action was in accordance with a Notice Pursuant to Section 4(q) of the Illinois Environmental Protection Act. On October 3, 1994, IEPA contracted Riedel Environmental Services, Inc. (Riedel), of Chesterfield, Missouri, to conduct the evaporation pit and drum storage area excavation activities, and to remove the stored drums of soil from earlier excavations (Gross 1995d). Riedel excavated the soil contained within the area indicated to be the original dimensions of the evaporation pit and placed the soil in roll-off boxes for disposal. In late October 1994 a second soil excavation was conducted to remove soil from the sloped sides of the pit. Photoionization detectors (PIDs) used by Riedel during the excavation indicated elevated organic vapor readings. In November 1994, Riedel excavated to a depth of 4 to 5 feet in the evaporation pit. All of the excavated material was disposed of in a hazardous waste landfill in Alabama (Gross 1995d). Cleanup of the drum storage areas was completed in June 1995. As of August 1995, excavation of the evaporation pit is nearly completed, and little residual contamination remains (Gross 1995b).

In January 1995 GEO Environmental (GEO), of St. Louis, Missouri, was contracted by IEPA to conduct a soil vapor study of the evaporation pit. GEO was instructed by IEPA to collect soil vapor samples at 5- and 9-foot depths. VOCs were not detected in the samples above detection limits (Gross 1995d).

In February 1995 IEPA collected samples from the evaporation pit to determine whether the soils met closure requirements (Gross 1995c). Five soil samples were collected

and analyzed for VOCs, heavy metals, and PCBs. Residual concentrations of VOCs were detected in the soil samples.

As of September 1, 1995, IEPA intends to excavate an additional 9 cubic yards of soil from the evaporation pit. Following the soil excavation, IEPA intends to designate the area remediation complete and backfill the pit area with clean fill materials (Gross 1995a).

4. MIGRATION AND EXPOSURE PATHWAYS

This section describes the four migration and exposure pathways associated with the Van Tran site. Section 4.1 discusses the groundwater migration pathway; Section 4.2 discusses the surface water migration pathway; Section 4.3 discusses the soil exposure pathway; and Section 4.4 discusses the air migration pathway.

4.1 GROUNDWATER MIGRATION PATHWAY

This section discusses the geology and soils, groundwater releases, and targets associated with the groundwater migration pathway at the site.

4.1.1 Geology and Soils

The Hagarstown Beds, Quaternary deposits of gravel, sand, silts, and clay, are found underneath the Van Tran site to depths of approximately 100 feet BGS. The bedrock beneath the Quaternary deposits consists of Pennsylvanian calcareous shales and clays (Baker/TSA 1988). A hydrogeologic investigation was performed as part of the preliminary containment assessment performed by Baker/TSA in 1987. In the preliminary containment assessment report, Baker/TSA indicated that there appeared to be two distinct aquifers beneath the site. The uppermost aquifer, which is the water table aquifer, occurs in the Hagarstown Beds. Fifty feet of glacial till then separates the uppermost aquifer from the second aquifer occurring in the Pennsylvanian bedrock. Based on groundwater elevations collected during monitoring well installations, the direction of groundwater flow is to the north (Baker/TSA 1988).

Approximately 1,000 residents within a 4-mile radius of the Van Tran site obtain drinking water from private wells drawing water from the shallow aquifer (IEPA 1987a).

4.1.2 Groundwater Releases

Based on current site conditions and analytical results obtained from previous investigations, a release of hazardous substances into the groundwater has not been documented. However, a potential for a release of TAC and TCL chemicals from the site to groundwater exists.

In April 1987 EEI installed four monitoring wells on the Van Tran site. Monitoring well A (MW-A) was intended to be a downgradient well. It was installed north of the on-site buildings and to the east of the evaporation pit. Monitoring well B (MW-B) was also intended to be a downgradient well, and it was installed in the northwest corner of the site. Monitoring well C (MW-C), also a downgradient well, was installed northeast of the facility, and monitoring well D (MW-D) was installed south (upgradient) of the site across U.S. 40. See Figure 2-2 for monitoring well and piezometer locations.

Chemical analysis of groundwater samples collected by EEI in May 1987 indicated the presence of TCL and TAL chemicals. 1,1,1 Trichloroethane was detected in MW-B at a concentration of 10 micrograms per liter (μ /L) (Baker/TSA 1988); however, no TCL or TAL chemicals were detected at levels greater than the drinking water Maximum Contaminant Level (MCL) set by the U.S. EPA in the June 1994 Superfund Chemical Data Matrix (SCDM) (U.S. EPA 1994b). Complete analytical results obtained from the samples collected in 1987 are provided in Appendix A of this report. No known engineering controls are installed on site to prevent the migration of contaminants to groundwater or surface water.

4.1.3 Targets

The City of Vandalia obtains its water supply from two surface water intakes. One intake is located on the Kaskaskia River at the point where U.S. Route 51 meets the river on the eastern side of Vandalia (Dunaway 1995). This intake is located upstream of the confluence of Town Branch Creek and the Kaskaskia River (IEPA 1987a). The second surface water intake is located on Lake Vandalia, an impoundment on Bear Creek, approximately 1.5 miles northeast and upstream of the site. The city of Vandalia's water system services approximately 6,100 persons (Dunaway 1995).

Approximately 1,000 persons residing within a 4-mile radius of the site obtain drinking water from private wells drawing water from the shallow aquifer. The closest private well is located approximately 0.5 mile north of the site (USGS 1974a).

4.2 SURFACE WATER MIGRATION PATHWAY

Based on current site conditions, a release to surface water has not been documented. The nearest surface water body to the Van Tran site is Town Branch Creek, which is located approximately 0.5 mile to the southeast. Town Branch Creek flows in a southeasterly direction for approximately 1 mile to its confluence with the Kaskaskia River (USGS 1974a). The Kaskaskia River is used recreationally for boating, swimming, and fishing (DeLorme 1991). Uses of Town Branch Creek are not known. In April 1987 IEPA and EEI collected 12 sets of sediment samples for PCB analysis from the on-site drainage ditches and Town Branch Creek. PCBs were not detected in the on-site sediment sample collected from the drainage ditch along the railroad tracks north of the site. PCBs were detected at a total concentration of 3.6 mg/kg in a sample collected from the same ditch at an off-site location, northeast of the site. PCBs were detected at a maximum total concentration of 680 mg/kg in the drainage ditch on the southeast side of the site. The concentration of PCBs decreased to 5.4 mg/kg in a sample collected at an unknown distance downstream of the site. A sediment sample collected from the western drainage ditch, at the point where it flows off site and under U.S. Route 40, was found to contain PCBs at a concentration of 4.2 mg/kg. The point where the eastern and western drainage ditches converge, south of U.S. Route 40 and southeast of the site, was also sampled, and PCBs were detected at a total concentration of less than 1 mg/kg (EEI 1987). From that location, the drainage ditch flows south to an intermittent tributary of Town Branch Creek. Analysis of samples collected from the next two downstream sediment sample locations, in Town Branch Creek, indicated no detectable PCB concentrations. The sample collected from the next downstream location had a PCB concentration of less than 1 mg/kg, and the sample collected from next-to-last downstream location had a total PCB concentration of 11 mg/kg. No PCBs were detected in the final downstream sample location, near the confluence of Town Branch Creek and the Kaskaskia River (EEI 1987). However, IEPA indicated that any PCB contamination found in the sediment samples was not directly attributable to the Van Tran site (Gross 1995a).

The site is not known to be located within the 500-year floodplain of Town Branch Creek or the Kaskaskia River (IEPA 1987a).

The City of Vandalia obtains its water from two surface water intakes. One intake is on the Kaskaskia River and it is located at the point upstream of the confluence of Town Branch Creek and the Kaskaskia River. The second surface water intake is located on Lake Vandalia, an impoundment on Bear Creek, approximately 1.5 miles northeast and upstream of the site. The City of Vandalia's water system services approximately 6,100 persons (Dunaway 1995).

Numerous small (less than 5 acres in size) wetlands are known to exist within a 4-mile radius of the site and along the banks of the Kaskaskia River within 15 miles downstream of the Van Tran site (USDI 1988a, 1988b). In addition, several species of threatened or endangered plants and animals are known to exist in Fayette County (Herkert 1994). However, none of the wetlands are confirmed to have been adversely affected by the Van Tran site, and none of the endangered species are confirmed to have habitats on site (IEPA 1987a).

4.3 SOIL EXPOSURE PATHWAY

A release of hazardous substances from the Van Tran site to surrounding soils has been documented. During the February 1995 sampling conducted by IEPA, elevated levels of VOCS and PCBs were detected in the soils beneath the evaporation pit. Five soil samples, identified as X101 through X105, were collected. Chemical analysis of soil sample X101 did not indicate the presence of VOCs. Residual concentrations of VOCs were detected in samples X102, X103, and X104, but the levels were not significantly above the detection limits. Chemical analysis of soil sample X105 indicated the presence of the following chemicals: toluene, 2,800 mg/kg; ethylbenzene, 95 mg/kg; xylenes, 520 mg/kg; and Aroclor 1242, 6 mg/kg (Gross 1995c). Appendix C presents the 1995 IEPA soil sample analytical results.

However, in 1994 IEPA began excavating the evaporation pit. As of August 1995, excavation of the pit is nearly completed, and according to IEPA little residual contamination remains. Cleanup of the former drum storage area was completed under IEPA supervision in June 1995, and IEPA continues to monitor the site (Gross 1995a, 1995b). As of September 1, 1995, IEPA intends to excavate an additional 9 cubic yards of soil from the evaporation pit. IEPA will then designate the area remediation complete and backfill the area with clean fill material (Gross 1995a).

The Van Tran Electric Corp. has not been active since September 1987. Therefore, the only on-site workers are those involved with the on-going state-funded cleanup activities. No schools, daycare centers, or private residences are located within 200 feet of the site. According to the USGS map, the nearest residence is located 0.5 mile north of the site, based on a straight-line distance. Approximately 3,000 persons reside within a 1-mile radius of the site, based on a straight-line distance (USGS 1974a). Access to the entire site is not restricted; however, a fence exists around the evaporation pit to prevent access (Gross 1995a).

Several species of threatened or endangered plants and animals are known to exist in Fayette County (Herkert 1994), but none are known to exist on the Van Tran site.

4.4 AIR MIGRATION PATHWAY

Based on the current site conditions, a release of hazardous substances from the site to air is unlikely, but the potential for such a release exists. The evaporation pit has been excavated and confirmation samples have been collected to determine the levels of residual contamination (Gross 1995b). During the site investigative activities conducted by Riedel in October 1994, PID readings indicated elevated vapor readings in the evaporation pit area; however, no air samples have been collected for analysis. In addition, the site is well vegetated, and this would reduce the potential for windblown contamination. Approximately 6,450 persons reside within a 4-mile radius of the site (USGS 1974a, 1974b, 1974c, 1974d). No complaints by nearby residents of odors emanating from the site are currently on file with the IEPA or the U.S. EPA.

Numerous small (less than 5 acres) wetlands are known to exist within a 4-mile radius of the site and along the banks of the Kaskaskia River within 15 miles downstream of the Van Tran site (USDI 1988a and 1988b). In addition, several species of threatened or endangered plant and animals are known to exist in Fayette County (Herkert 1994). The Vandalia Geological Area is located approximately 2 miles north of the Van Tran site, based on a straight-line distance (Illinois Natural Heritage 1994).

5. SUMMARY

E & E has evaluated the Van Tran site using the existing IEPA and U.S. EPA files, various state information services, and personal communications with IEPA personnel. The Van Tran Electric Corp. was a manufacturer of electrical transformers and operated at the site from 1962 to September 1987. The approximately 3-acre site is located within the corporate boundaries of Vandalia, Illinois.

In June 1985 IEPA conducted a site reconnaissance inspection of the Van Tran site and discovered that an evaporation pit located in the northern portion of the site was being used to discard paint and solvent wastes. Xylene, toluene, MEK, and PCBs are suspected to have been disposed of in this impoundment.

On March 1, 1987, the Van Tran Electric Corp. and IEPA entered into a consent agreement to conduct site investigation activities at the site. An SSI was conducted by IEPA on May 13, 1987, but no samples were collected (IEPA 1987a). In May 1993 IEPA made the decision to fund the closure of the evaporation pit because the Van Tran Electric Corp. was failing to make progress in the remedial work.

The geology in the area of the Van Tran site consists of Quaternary deposits of gravel, sand, silt, and clay to a depth of approximately 100 feet. The bedrock beneath the Quaternary deposits consists of Pennsylvanian calcareous shales and clays (Baker/TSA 1988). Two distinct aquifers exist beneath the site. The uppermost aquifer, which is the water table aquifer, occurs in the Hagarstown Beds. Based on groundwater elevations collected during monitoring well installations, the direction of groundwater flow is toward the north (Baker/TSA 1988).

Approximately 1,000 persons residing within a 4-mile radius of the site obtain drinking water from private wells drawing water from the shallow aquifer. The closest private well is located approximately 0.5 mile north of the site (USGS 1974a).

Based on current site conditions and previous groundwater sampling events, a release of hazardous substances from the site into the groundwater has not been documented.

1,1,1-Trichloroethane was detected at a concentration of 10 μ /L in a groundwater sample collected in MW-B during the April 1987 site investigative activities, but no other contaminants were detected.

Town Branch Creek, the nearest surface water body to the Van Tran site, is located approximately 0.5 mile to the southeast. Uses of Town Branch Creek are not known. Town Branch Creek flows in a southeasterly direction for approximately 1 mile to its confluence with the Kaskaskia River (USGS 1974a), which is used recreationally for boating, swimming, and fishing (DeLorme 1991).

Based on current site conditions, a release of hazardous substances from the site to surface water has not been documented. The nearest surface water body to the Van Tran site, Town Branch Creek, is located approximately 0.5 mile to the southeast. Town Branch Creek flows in a southeasterly direction for approximately 1.5 miles to its confluence with the Kaskaskia River (USGS 1974a). The Kaskaskia River is used recreationally for boating, swimming, and fishing (DeLorme 1991). Uses of Town Branch Creek are not known. In April 1987 IEPA and EEI collected 12 sets of sediment samples for PCB analysis from the on-site drainage ditches and Town Branch Creek. Sediment sample locations are presented in Appendix B. PCBs were not detected in the on-site sediment sample collected from a drainage ditch along the railroad tracks north of the site. PCBs were detected at a total concentration of 3.6 mg/kg in a sample collected from the same ditch at an off-site location, northeast of the site. PCBs were detected at a maximum total concentration of 680 mg/kg in the drainage ditch on the southeast side of the site. The concentration of PCBs decreased to 5.4 mg/kg in a sample collected at an unknown distance downstream of the site. A sediment sample collected from the western drainage ditch, at the point where it flows off site and under U.S. Route 40, was found to contain PCBs at a concentration of 4.2 mg/kg. The point where the eastern and western drainage ditches converge, south of U.S. Route 40 and southeast of the site, was also sampled, and PCBs were detected at a total concentration of less than 1 mg/kg (EEI 1987). From that location, the drainage ditch flows south to an intermittent tributary of Town Branch Creek. Analysis of samples collected from the next two downstream sediment sample locations, in Town Branch Creek, indicated no detectable PCB concentrations. The sample collected from the next downstream location had a PCB concentration of less than 1 mg/kg, and the sample collected from next-to-last downstream location had a total PCB concentration of 11 mg/kg. No PCBs were detected in the final downstream sample location, near the confluence of Town Branch Creek and the Kaskaskia River (EEI 1987). However, IEPA indicated that any PCB contamination found in the sediment samples was not directly attributable to the Van Tran site (Gross 1995a).

The site is not known to be located within the 500-year floodplain of Town Branch Creek or the Kaskaskia River (IEPA 1987a).

The City of Vandalia obtains its water from two surface water intakes. One intake is located on the Kaskaskia River at a the point upstream of the confluence of Town Branch Creek and the Kaskaskia River. The second surface water intake is located on Lake Vandalia, an impoundment on Bear Creek, approximately 1.5 miles northeast and upstream of the site. The City of Vandalia's water system services approximately 6,100 persons (Dunaway 1995).

Numerous small (less than 5 acres in size) wetlands are known to exist within a 4-mile radius of the site and along the banks of the Kaskaskia River within 15 miles downstream of the Van Tran site (USDI 1988a and 1988b). In addition, several species of threatened or endangered plants and animals are known to exist in Fayette County (Herkert 1994). However, none of the wetlands or endangered species are confirmed to have been adversely affected by the Van Tran site (IEPA 1987a).

A release of hazardous substances from the Van Tran site to surrounding soils has been documented. 1995 sampling by IEPA revealed elevated levels of VOCs and PCBs in soils beneath the evaporation pit. However, as of September 1, 1995, IEPA intends to excavate an additional 9 cubic yards of soil from the evaporation pit and designate the area remediation complete. Backfilling of the area with clean fill material will complete the work on the excavation pit (Gross 1995a).

Based on the current site conditions, a release of hazardous substances to air is unlikely to have occurred at the Van Tran site, but the potential for such a release exists. The site is well vegetated, and the vegetation would reduce the potential for windblown contamination. The evaporation pit has been excavated, and confirmation samples have been collected to determine the levels of residual contamination (Gross 1995b). During the site investigative activities conducted by Riedel in October 1994, PID readings indicated elevated vapor readings in the evaporation pit area; however, no air samples have been collected for analysis. No complaints by nearby residents of odors emanating from the site are currently on file with the IEPA or the U.S. EPA. Numerous small (less than 5 acres in size) wetlands are known to exist within a 4-mile radius of the site along the banks of the Kaskaskia River, but none are known to have been impacted by air releases from the site (USDI 1988a and 1988b). The Vandalia Geological Area is located approximately 2 miles north of the Van Tran site, based on a straight-line distance (Illinois Natural Heritage 1994).

The Van Tran site has been an IEPA-led and -funded cleanup site since May 1993. At present, the drum storage areas and the evaporation pit have been remediated. Confirmation sampling of the evaporation pit has been conducted to determine the levels of

residual contamination, and the IEPA intends to complete remediation efforts in the near future (Gross 1995a).

6. REFERENCES

References not included in Appendix D. documents that are currently available within U.S. EPA files; copyrighted documents that are currently available in E & E's library, maps produced by either the U.S. Geologic Survey of the Illinois State Geologic Survey; and documents that are created by various state agencies for public use.

Baker/TSA, Inc., 1988, *Revised Report Preliminary Contaminant Assessment, Van Tran Electric Corporation, Vandalia, Illinois*, Merrillville, Indiana.

Battas, G., 1995, personal communication, IEPA Environmental Protection Specialist, Collinsville, Illinois, telephone conversation, contacted by Jennifer Billington, Ecology and Environment, Inc., Buffalo, New York.

DeLorme Mapping, 1991, *Illinois Atlas and Gazetteer*, Freeport, Maine.

Dunaway, L., 1995, personal communication, IEPA Environmental Protection Specialist, Springfield, Illinois, telephone conversation, contacted by Jennifer Billington, Ecology and Environment, Inc., Buffalo, New York.

Envirodyne Engineers, Inc. (EEI), 1987, *Oversite Review/General Assessment of Site Investigation Van Tran Electric Company, Vandalia, Illinois*, St. Louis, Missouri.

Gross, T., September 1, 1995a, personal communication, IEPA Project Manager for the Van Tran Electric Corp. site, Springfield, Illinois, telephone conversation, contacted by Jennifer Billington, Ecology and Environment, Inc., Buffalo, New York.

_____, August 10, 1995b, personal communication, IEPA Project Manager for the Van Tran Electric Corp. site, Springfield, Illinois, telephone conversation, contacted by Jennifer Billington, Ecology and Environment, Inc., Buffalo, New York.

_____, 1995c, *Project Brief, Vandalia/Van Tran Electric/ Superfund/Technical Reports*, Springfield, Illinois.

_____, 1995d, *Remedial Project Status Report, Vandalia/Van Tran Electric Superfund/Technical Reports*, Springfield, Illinois.

- _____, 1993, *Memorandum to Riedel Environmental Services, Inc., regarding Vandalia/Van Tran Electric Superfund/Technical Reports*, Springfield, Illinois.
- Herkert, J.R., 1994, *Endangered and Threatened Species of Illinois: Status and Distribution, Volumes 1, 2, & 3*, Illinois Endangered Species Protection Board, Springfield, Illinois.
- Illinois Environmental Protection Agency (IEPA), 1994, Office of Chemical Safety, *Technical Report, A Summary of Selected Background Conditions for Inorganics in Soil*, Springfield, Illinois.
- _____, 1987a, *Screening Site Inspection Report for the Van Tran Electric Corp. Site*, Springfield, Illinois.
- _____, 1987b, *Facility Inspection Form for Compliance with Interim Status Standards Covering Groundwater Monitoring*, Springfield, Illinois.
- _____, 1985a, *Site Reconnaissance Inspection Report*, Springfield, Illinois.
- _____, 1985b, *Potential Hazardous Waste Site Preliminary Assessment for the Van Tran Electric Corporation site*, Springfield, Illinois.
- Illinois Natural Heritage, 1994, *List of Illinois Natural Area Inventory Sites by County*, Springfield, Illinois.
- Moss, K., 1988, *RFA Final Summary and Recommendation for Van Tran Electric Corp.*, Springfield, Illinois.
- _____, 1987, *Memorandum to RCRA Files regarding the Van Tran Electric Corp.*, Springfield, Illinois.
- Rand McNally (McNally), 1994, *Commercial Atlas and Marketing Guide, 125th Edition*, Chicago, Illinois.
- United States Environmental Protection Agency (U.S. EPA), 1994a, Office of Emergency and Remedial Response, *Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*, EPA 540/R-94/013, Washington, District of Columbia.
- _____, 1994b, *Superfund Chemical Data Matrix EPA 540-R-94-009*, Washington, District of Columbia.
- United States Department of the Interior (USDI), Fish and Wildlife Service, 1988a, *National Wetlands Inventory*, Vandalia, Illinois.
- _____, 1988b, *National Wetlands Inventory*, Patokia, Illinois.
- _____, 1988c, *National Wetlands Inventory*, Hagarstown, Illinois.
- _____, 1988d, *National Wetlands Inventory*, Wildcat Lake, Illinois.

United States Geological Survey (USGS) 1974a, 7.5-minute series (topographic) quadrangle,
Vandalia, Illinois.

_____, 1974b, 7.5-minute series (topographic) quadrangle, Hagarstown, Illinois.

_____, 1974c, 7.5-minute series (topographic) quadrangle, Patoka, Illinois.

_____, 1974d, 7.5-minute series (topographic) quadrangle, Wildcat Lake, Illinois.

APPENDIX A

1987 PRELIMINARY CONTAMINANT ASSESSMENT ANALYTICAL DATA

TABLE F-1
VANTRAN ELECTRIC CORPORATION
PRELIMINARY ASSESSMENT
SURFACE SOILS SAMPLING/ANALYTICAL RESULTS

SAMPLE I.D. LOCATION	2000* S OF LOADING DOCK	2001 W OF COOLING RACK	2002 NE OF PROD. BUILDING
<u>PARAMETERS</u> mg/kg			
Aluminum, Total	1300	8010	6590
Antimony, Total	<1.99	<2.00	<2.00
Arsenic, Total	1.35	6.65	4.53
Barium, Total	178	201	72.2
Beryllium, Total	0.129	0.349	0.289
Cadmium, Total	1.22	2.34	1.09
Calcium, Total	264000	4200	13700
Chromium, Total	6.03	19.6	11.4
Cobalt, Total	<1.99	5.09	3.69
Copper, Total	8.78	28.8	23.8
Iron, Total	7270	16200	12300
Lead, Total	44	72	29
Magnesium, Total	7330	2030	3030
Manganese, Total	640	695	277
Mercury, Total	<0.05	<0.05	<0.05
Nickel, Total	4.71	28.8	6.80
Potassium, Total	620	830	310
PCBs, Total	11	62	3
Aroclor 1016	<1	<1	<1
Aroclor 1221	<1	<1	<1
Aroclor 1242	<1	<1	<1
Aroclor 1248	1	48	<1
Aroclor 1254	<1	<1	<1
Aroclor 1260	10	14	3
Selenium, Total	<1.00	<0.998	<0.998
Silver, Total	<2.99	<2.99	<2.99
Sodium, Total	112	58.9	50.9
Solids, Total	96.3%	83.4%	83.6%
Thallium, Total	<1.00	<0.98	<0.98
Vanadium, Total	6.08	26.2	22.2
Zinc, Total	35.8	242	35.1

*Split sample with IEPA representative.

TABLE F-2
VANTRAN ELECTRIC CORPORATION
PRELIMINARY ASSESSMENT
ANALYTICAL RESULTS SOIL BORING SB-A (SURFACE IMPOUNDMENT AREA)

MPLE I.D. PTH INTERVAL	2045 0-1	2046 1-2	2047 2-5	2048D 2-5	2049* 5-8	2050 8-9	2051 9-10	2052 10-11	2053 11-12
PARAMETER mg/kg★									
Aluminum, Total	7340	5930	4600	4120	9670	6630	1070	924	783
Antimony, Total	<1.76(1)	<1.95(1)	<1.93(1)	<1.91(1)	<1.81(1)	<1.89(1)	<1.97(1)	<1.95(1)	<1.99(1)
Arsenic, Total	7.83	1.86(1)	2.86(1)	2.00(1)	7.29(1)	3.21(1)	1.29(1)	1.07(1)	1.23(1)
Barium, Total	74.6	61.4	83.1	79.8	56.8	31.7	15.3	12.6	15.6
Beryllium, Total	0.265(1)	0.499	0.406	0.512	0.478	0.356	0.211	<0.093	<0.092
Bismuth, Total	2.07	1.69	2.22	1.77	0.940	1.06	0.750	1.91	0.648
Boron, Total	2000	2270	1190	1210	1250	828	685	343	471
Bromine, Total	18.3	13.9	15.1	14.5	8.22	7.74	3.37	3.09	3.88
Cadmium, Total	9.14(1)	3.79	3.19	4.06	2.63	2.89	2.02	<1.86	<1.84
Calcium, Total	20.8	21.7	7.76	7.80	5.69	6.24	2.54	2.78	24.6
Carbon, Total	17500	11000	20100	15700	6120	4330	1950	6680	6180
Chlorine, Total	170	73.1	13.5	16.3	8.1	4.7	<5.0	<5.0	<5.0
Cobalt, Total	1710	1580	1180	1180	915	1010	529	296	372
Copper, Total	278(2)	299(1)	101(1)	45.1(1)	22.6(1)	27.7(1)	20.7(1)	246(1)	344(1)
Mercury, Total	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Iron, Total	10.2	7.60	12.1	10.2	8.46	8.03	3.88	5.58	3.81
Lead, Total	1750	620(1)(2)(3)	790(1)(2)(3)	610(1)(2)(3)	440(1)(2)(3)	70(1)(2)(3)	240(1)(2)	220(1)(2)	620(1)(2)(3)
Barium, Total Detectable	96	10	44	37	3	<1	<1	<1	<1
Chlorine, 1016	<5	<1	<5	<5	<1	<1	<1	<1	<1
Chlorine, 1221	<5	<1	<5	<5	<1	<1	<1	<1	<1
Chlorine, 1242	<5	<1	<5	<5	3	<1	<1	<1	<1
Chlorine, 1248	69	7	31	26	<1	<1	<1	<1	<1
Chlorine, 1254	<5	<1	<5	<5	<1	<1	<1	<1	<1
Chlorine, 1260	27	3	13	11	<1	<1	<1	<1	<1
Chromium, Total	<0.98	<0.39(1)	<0.39(1)	<0.38(1)	<0.36(1)	<0.38(1)	<0.39(1)	<0.39(1)	<0.40(1)
Copper, Total	<2.65(2)	<2.93	<2.89	<2.87	<2.71	<2.84	<2.96	<2.93	<2.99
Fluorine, Total	57.3	82.0	234	223	244	220	123	87.8	72.8
Hydrogen, Total	82.1%	88.1%	84.7%	86.8%	87.4%	88.1%	91.9%	94.7%	94.1%
Aluminum, Total	<0.74	<0.73	<0.72	<0.72	<0.68	<0.71	<0.74	<0.73	<0.75
Sodium, Total	21.0(1)	15.8	18.3	18.4	21.8	14.1	10.4	6.04	3.87
Iron, Total	525	206(3)	32.0(2)	39.0(2)	23.4(2)	29.0(2)	18.6(2)	19.6(2)	17.6(2)

Split sample with IEPA representative.
Detected in laboratory blank.
Dry weight basis.

- (1) Spike recovery not within control limit.
- (2) Duplicate not within control limit.
- (3) Severe matrix interference.

TABLE F-2 (continued)
 VANTRAN ELECTRIC CORPORATION
 PRELIMINARY ASSESSMENT
 ANALYTICAL RESULTS SOIL BORING SB-A (SURFACE IMPOUNDMENT AREA)

SAMPLE I.D. DEPTH INTERVAL	2045 0-1	2046 1-2	2047 2-5	2048D 2-5	2049* 5-8	2050 8-9	2051 9-10	2052 10-11	2053 11-12
UNKNOWN/TENTATIVELY IDENTIFIED SEMIVOLATILE COMPOUNDS t. Concentrations (g/kg)									
ylene	NA	NA	1600	6700	ND	ND	ND	ND	ND
unknown Benzene	NA	NA	1900	980	ND	ND	ND	ND	ND
unknown	NA	NA	2200	10000	1100	710	470 **	410	960**
ecane	NA	NA	2200	7700	ND	ND	ND	ND	ND
hyl Methyl Benzene	NA	NA	1700	ND	ND	ND	ND	ND	ND
unknown Hydrocarbon	NA	NA	1500	1700	870	ND	ND	ND	ND
unknown Hydrocarbon	NA	NA	1500	1800	ND	ND	ND	ND	ND
ethyl(Methyl Ethyl)	NA	NA	2800	990	ND	ND	ND	ND	ND
Benzene									
ndecane	NA	NA	5400	6700	ND	ND	ND	ND	ND
unknown Benzene	NA	NA	1100	1900	ND	ND	ND	ND	ND
unknown Benzene	NA	NA	2000	ND	ND	ND	ND	ND	ND
unknown	NA	NA	950	950	ND	490	560	ND	720**
unknown Hydrocarbon	NA	NA	930	1200	ND	ND	ND	ND	ND
ndecane	NA	NA	2200	1800	ND	ND	ND	ND	ND
unknown	NA	NA	1700	1100	11000	740	380 **	ND	ND
unknown Hydrocarbon	NA	NA	2000	ND	ND	ND	ND	ND	ND
unknown Hydrocarbon	NA	NA	1600	ND	ND	ND	ND	ND	ND
ylene	NA	NA	ND	2400	ND	ND	ND	ND	ND
imethyl Benzene	NA	NA	ND	2200	ND	ND	ND	ND	ND
imethyl Benzene	NA	NA	ND	1200	ND	ND	ND	ND	ND
ethyl Propyl Benzene	NA	NA	ND	900	ND	ND	ND	ND	ND
ethyl (Methyl Ethyl)	NA	NA	ND	1900	ND	ND	ND	ND	ND
Benzene									
unknown	NA	NA	ND	1000	ND	ND	ND	ND	ND
unknown Tetrachloro-1,1'-	NA	NA	ND	1300	ND	ND	ND	ND	ND
Biphenyl									
1,2,2 Tetrachloroethane	NA	NA	ND	ND	ND	1200	580 **	1100	740**

Split sample with IEPA representative.

- Detected in laboratory blank.

TABLE F-2 (continued)
 VANTRAN ELECTRIC CORPORATION
 PRELIMINARY ASSESSMENT
 ANALYTICAL RESULTS SOIL BORING SB-A (SURFACE IMPOUNDMENT AREA)

SAMPLE I.D. PTH INTERVAL	2045 0-1	2046 1-2	2047 2-5	2048D 2-5	2049* 5-8	2050 8-9	2051 9-10	2052 10-11	2053 11-12
MI-VOLATILE COMPOUNDS µg/kg									
Phthalene	NA	NA	<1000	[830]	<1000	<1000	<1000	<1000	<1000
Diethyl xyl)Phthalate	NA	NA	1700	[760]	<1000	<1000	<1000	<1000	<1000
SEMI-VOLATILE COMPOUNDS µg/kg									
Acetone	NA	NA	<5000	10000	8900	6700	37	2300	94
Butanone	NA	NA	87000	92000	36000	6300	<10	1600	93
Benzene	NA	NA	31000	3000	<50	<50	<5	<50	<5
Total Xylenes	NA	NA	<7500	2600	<150	<150	<15	<150	<15
Methyl-2-Pentanone	NA	NA	<5000	<100	230	230	<10	<100	<10

- Split sample with IEPA representative.

- Not analyzed for this parameter.

- Reported value is less than detection limit.

TABLE F-2 (continued)
VANTRAN ELECTRIC CORPORATION
PRELIMINARY ASSESSMENT
ANALYTICAL RESULTS SOIL BORING SB-A (SURFACE IMPOUNDMENT AREA)

PLE I.D. TH INTERVAL	2045 0-1	2046 1-2	2047 2-5	2048D 2-5	2049* 5-8	2050 8-9	2051 9-10	2052 10-11	2053 11-12
<u>KNOWN TENTATIVELY IDENTIFIED VOLATILE COMPOUNDS</u> Concentrations (g)									
Propanol	NA	NA	ND	570	1500	440	ND	360	ND
Acetic Acid, Methyl Ester	NA	NA	ND	86	290	ND	ND	ND	ND
Ethanol	NA	NA	ND	560	520	450	ND	300	ND
Unknown	NA	NA	ND	52	87	ND	ND	ND	ND
Unknown	NA	NA	ND	100	ND	ND	ND	ND	ND
Unknown	NA	NA	ND	130	ND	ND	ND	ND	ND
Acetone	NA	NA	ND	180	ND	71	ND	ND	ND
Unknown	NA	NA	ND	61	ND	ND	ND	ND	ND
Unknown	NA	NA	ND	190	ND	ND	ND	ND	ND
Ethyl Propanol	NA	NA	ND	ND	56	ND	ND	ND	ND
Ethanol	NA	NA	ND	ND	130	ND	ND	ND	ND
Acetic Acid, Butyl Ester	NA	NA	ND	ND	87	ND	ND	ND	ND

Split sample with IEPA representative.
Not analyzed for this parameter.
None detected.

TABLE F-3
VANTRAN ELECTRIC CORPORATION
PRELIMINARY ASSESSMENT
ANALYTICAL RESULTS SOIL BORING SB-B (SURFACE IMPOUNDMENT AREA)

MPLE I.D. PTH INTERVAL	2036* 0-1	2037 1-2	2038* 2-5	2039 5-8	2040D 5-8	2041 8-9	2042 9-10	2043 10-11	2044 11-12
PARAMETER mg/kg★									
Aluminum, Total	9980	10100	5750	6380	5090	1730	1050	619	720
Antimony, Total	<0.98(1)	<1.94(1)	<1.92(1)	<1.90(1)	<1.79(1)	<1.60(1)	<1.66(1)	<1.60(1)	<1.91(1)
Barium, Total	5.62	8.64	14.8	3.16	0.71	0.49	1.13	0.98	4.88
Bismuth, Total	96.5	140	78.5	23.8	20.7	23.7	10.1	12.5	8.15
Bryllium, Total	0.452(1)	0.550(1)	0.402(1)	0.330(1)	0.254(1)	0.132(1)	<0.095(1)	<0.098(1)	<0.095(1)
Cadmium, Total	1.96	1.56	1.91	0.339	0.920	0.392	0.248	0.472	0.544
Calcium, Total	2480	1180	1390	250	4130	1310	569	522	559
Chromium, Total	19.1	16.4	17.8	5.31	4.29	6.74	2.95	3.47	3.20
Cobalt, Total	7.89(1)	7.91(1)	2.35(1)	2.91(1)	2.44(1)	2.16(1)	<1.91(1)	<1.96(1)	<1.90(1)
Copper, Total	24.4	14.0	10.7	5.11	4.02	4.65	2.04	2.62	2.80
Iron, Total	17500	11400	16600	6890	7980	4700	2130	6110	3060
Lead, Total	48.5	12.3	10.4	<5.0	<5.0	<5.0	<10	<5.0	<5.0
Magnesium, Total	1870	1740	1890	1110	885	1070	441	422	433
Manganese, Total	239(2)	223(2)	269(2)	148(2)	157(2)	37.8(2)	30.2(2)	219(2)	92.1(2)
Mercury, Total	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Nickel, Total	10.0	16.0	10.2	9.49	8.33	8.10	3.79	5.80	4.03

Split sample with IEPA representative.
Dry weight basis.
Spike recovery not within control limit.
Duplicate not within control limit.

TABLE F-3 (continued)
 VANTRAN ELECTRIC CORPORATION
 PRELIMINARY ASSESSMENT
 ANALYTICAL RESULTS SOIL BORING SB-B (SURFACE IMPOUNDMENT AREA)

PILE I.D. DEPTH INTERVAL	2036* 0-1	2037 1-2	2038* 2-5	2039 5-8	2040D 5-8	2041 8-9	2042 9-10	2043 10-11	2044 11-12
AMETER mg/kg★									
Barium, Total	1750	1310	1270	725	227	490	121	221	234
Boron, Total	85	23	15	<1	1	1	<1	<1	1
Chloride, 1016	<5	<5	<1	<1	<1	<1	<1	<1	<1
Chloride, 1221	<5	<5	<1	<1	<1	<1	<1	<1	<1
Chloride, 1242	<5	<5	15	<1	1	1	<1	<1	<1
Chloride, 1248	72	19	<1	<1	<1	<1	<1	<1	1
Chloride, 1254	<5	<5	<1	<1	<1	<1	<1	<1	<1
Chloride, 1260	13	4	<1	<1	<1	<1	<1	<1	<1
Cadmium, Total	<0.96	<0.39	<0.39	<0.98	<0.39	<0.38	<0.38	<0.39	<0.38
Copper, Total	6.47(2)	11.0(2)	<2.88(2)	<3.01(2)	<2.80(2)	<2.40(2)	<2.48(2)	<2.40(2)	<2.87(2)
Iron, Total	82.0	120	72.1	207	184	197	118	114	98.4
Lead, Total	84.3%	85.4%	87.8%	90.9%	90.3%	93.4%	93.4%	94.8%	95.3%
Manganese, Total	<0.72	<0.72	<0.74	<0.73	<0.73	<0.70	<0.72	<0.73	0.92
Nickel, Total	24.7(1)	20.2(1)	11.1(1)	11.4(1)	12.3(1)	7.61(1)	6.68(1)	4.02(1)	4.74(1)
Sulfur, Total	314	42.8	205	31.3	25.9	21.2	19.0	16.2	26.2
ATILE COMPOUNDS									
Acetone	NA	NA	<50000	6800	10000	2900	260	60	<10
Acetone	NA	NA	200000	29000	21000	5000	190	94	<10
Acetone	NA	NA	850000	5800	150	<50	<50	<5	<5
Acetone	NA	NA	32000	<1000	<50	<50	<50	<5	<5
Acetone	NA	NA	120000	<3000	<150	<150	<150	<15	<15

Split sample with IEPA representative.
 Dry weight basis.
 Spike recovery not within control limit.
 Duplicate not within control limit.
 Not analyzed for this parameter.

TABLE F-3 (continued)
VANTRAN ELECTRIC CORPORATION
PRELIMINARY ASSESSMENT
ANALYTICAL RESULTS SOIL BORING SB-B (SURFACE IMPOUNDMENT AREA)

PLE I.D. TH INTERVAL	2036* 0-1	2037 1-2	2038* 2-5	2039 5-8	2040D 5-8	2041 8-9	2042 9-10	2043 10-11	2044 11-12
<u>SEMI-VOLATILE IDENTIFIED VOLATILE COMPOUNDS</u> Concentrations (ug/kg)									
Propanol	NA	NA	ND	ND	360	130	ND	ND	ND
Benzoic Acid, Methyl Ester	NA	NA	ND	ND	130	ND	ND	ND	ND
Isopropanol	NA	NA	ND	ND	400	160	ND	ND	ND
Unknown	NA	NA	ND	ND	68	ND	ND	12	ND
Unknown	NA	NA	ND	ND	72	ND	ND	ND	ND
Unknown	NA	NA	ND	ND	93	ND	ND	ND	ND
<u>NON-VOLATILE COMPOUNDS ug/kg</u>									
Isobutyl Alcohol	NA	NA	[930]	<1000	<1000	<1000	<1000	<1000	<1000
2-Ethyl Hexyl) Sulfonate	NA	NA	1000	<1000	<1000	<1000	<1000	<1000	<1000

Split sample with IEPA representative.

- Not detected.

- Not analyzed for this parameter.

Indicates value that is less than detection limit.

TABLE F-3 (continued)
 VANTRAN ELECTRIC CORPORATION
 PRELIMINARY ASSESSMENT
 ANALYTICAL RESULTS SOIL BORING SB-B (SURFACE IMPOUNDMENT AREA)

LE I.D. INTERVAL	2036* 0-1	2037 1-2	2038* 2-5	2039 5-8	2040D 5-8	2041 8-9	2042 9-10	2043 10-11	2044 11-12
<u>ATIVELY</u> <u>IFIED</u> <u>OLATILE</u> <u>OUNDS</u> oncentrations)									
e	NA	NA	21000	520	ND	ND	ND	ND	ND
e	NA	NA	6600	ND	ND	ND	ND	ND	ND
own Hydrocarbon	NA	NA	3000	650	ND	ND	ND	ND	ND
oxyl/Ethanol	NA	NA	1800	640	ND	ND	ND	ND	ND
own	NA	NA	7000	980	520	1300**	1000**	870**	830**
thyl Benzene	NA	NA	1800	ND	ND	ND	ND	ND	ND
ie	NA	NA	12000	760	ND	ND	ND	ND	ND
thyl Benzene	NA	NA	4400	ND	ND	ND	ND	ND	ND
ane	NA	NA	5100	2200	ND	ND	ND	ND	ND
own	NA	NA	2700	3200	3600	ND	ND	ND	ND
oro-1,1'-Biphenyl	NA	NA	2100	ND	ND	ND	ND	ND	ND
own Benzene	NA	NA	1600	ND	ND	ND	ND	ND	ND

Split sample with IEPA representative.
 Detected in Laboratory Blank.
 Not detected.
 Not analyzed for this parameter.

TABLE F-3 (continued)
 VANTRAN ELECTRIC CORPORATION
 PRELIMINARY ASSESSMENT
 ANALYTICAL RESULTS SOIL BORING SB-B (SURFACE IMPOUNDMENT AREA)

E.I.D. INTERVAL	2036* 0-1	2037 1-2	2038* 2-5	2039 5-8	2040D 5-8	2041 8-9	2042 9-10	2043 10-11	2044 11-12
<u>ATIVELY</u> <u>FIED</u> <u>OLATILE</u> <u>OUNDS</u> Concentrations (µg/kg)									
hyl Benzene	NA	NA	2500	ND	ND	ND	ND	ND	ND
ro-1,1'-Biphenyl	NA	NA	2600	ND	ND	ND	ND	ND	ND
ro-1,1'-Biphenyl	NA	NA	1700	ND	ND	ND	ND	ND	ND
ro-1,1'-Biphenyl	NA	NA	4200	ND	ND	ND	ND	ND	ND
ro-1,1'-Biphenyl	NA	NA	1800	ND	ND	ND	ND	ND	ND
wn	NA	NA	1600	740	1200**	ND	ND	ND	ND
wn	NA	NA	11000	1300	ND	ND	ND	ND	ND
wn	NA	NA	11000	1700	ND	ND	ND	ND	ND
wn Acid	NA	NA	ND	800	ND	ND	ND	ND	ND
wn Hydrocarbon	NA	NA	ND	730	ND	ND	ND	ND	ND
ane	NA	NA	ND	860	ND	ND	ND	ND	ND
-Tetrachloroethane	NA	NA	ND	ND	ND	1200**	ND	450**	680**

Split sample with IEPA representative.
 Detected in Laboratory Blank.
 Not detected.
 Not analyzed for this parameter.

TABLE 1-4
VANTRAN ELECTRIC CORPORATION
PRELIMINARY ASSESSMENT
ANALYTICAL RESULTS SOIL BORING SB-C (SOUTHEAST CORNER OF SITE)

SAMPLE I.D. DEPTH INTERVAL	2018 0-1	2019 1-2	2020 2-3	2021 3-4	2022 4-5	2023 5-6	2024 6-7
PARAMETER mg/kg							
Aluminum, Total	13084	4964	12060	9246	9857	1423	1331
Antimony, Total	<0.25	<0.21	<0.23	<0.23	<0.21	<0.19	0.34
Arsenic, Total	10	<1.65	7.0	20	14	<0.77	<0.86
Barium, Total	181	174	148	139	86	<15	<17
Beryllium, Total	0.50	0.58	0.46	0.83	0.86	0.38	0.43
Cadmium, Total	3.6	2.2	3.2	1.7	1.4	<0.31	<0.34
Calcium, Total	-	-	-	-	-	-	-
Chromium, Total	60	83	19	92	51	4.6	4.8
Cobalt, Total	8.0	12	7.4	15	15	3.1	3.4
Copper, Total	60	35	34	32	25	<0.7	<0.8
Iron, Total	13084	16545	11132	18491	15428	1308	1975
Lead, Total	402	265	102	3.7	188	2.8	2.0
Magnesium, Total	-	-	-	-	-	-	-
Manganese, Total	704	1240	835	1156	471	16	15
Mercury, Total	<0.10	<0.08	<0.09	0.18	<0.08	<0.08	<0.08
Nickel, Total	8.0	6.6	8.3	7.4	10	2.3	<2.6
Potassium, Total	-	-	-	-	-	-	-
PCBs, Total Detectable, mg/kg	2190	2470	1600	334	3100	121	100
Aroclor, 1016	<25	<58	<93	<23	<28	<0.2	<18
Aroclor, 1221	<25	<58	<93	<23	<28	<0.2	<18
Aroclor, 1232	<25	<58	<93	<23	<28	<0.2	<18
Aroclor, 1242	190	77	[47]	34	210	1.2	[16]
Aroclor, 1248	<25	<58	<93	<23	<28	<0.2	<18
Aroclor, 1254	<25	<58	<93	<23	<28	<0.2	<18
Aroclor, 1260	2000	2400	1600	300	2900	120	100
Selenium, Total	<0.5	<0.41	<0.46	<0.46	<0.43	<0.38	<0.43
Silver, Total	0.5	0.33	1.6	1.8	1.1	0.31	<0.34
Sodium, Total	-	-	-	-	-	-	-
Thallium, Total	<0.2	<0.17	<0.19	<0.18	<0.17	<0.17	<0.17
Vanadium, Total	25	43	25	39	33	1.8	4.8
Zinc, Total	252	165	232	139	86	9.2	12

□ - Value reported less than detection limit.

TABLE F-4 (continued)
VANTRAN ELECTRIC CORPORATION
PRELIMINARY ASSESSMENT
ANALYTICAL RESULTS SOIL BORING SB-C (SOUTHEAST CORNER OF SITE)

SAMPLE I.D. DEPTH INTERVAL	2018 0-1	2019 1-2	2020 2-3	2021 3-4	2022 4-5	2023 5-6	2024 6-7
<u>VOLATILE COMPOUNDS</u> ug/kg							
Methylene Chloride	3500**	2600	2700**	2300**	3900**	4000**	3600**
Acetone	4100**	4200	4900**	4200**	7100**	2900**	2600**
Chloroform	630**	580	760**	650**	620**	510**	[460]**
2-Butanone	9200	ND	12000	9300	8200	<500	<1000
Benzene	[270]**	[260]	[310]**	[270]**	[290]**	[260]	[230]
Toluene	<500**	1900	2400**	2300**	2600**	1700**	3100**
Ethylbenzene	[200]**	[160]	[270]**	[340]**	[440]**	[150]	[270]
Total Xylenes	[470]**	[380]	970**	1900**	4100**	520**	2200**
Chlorobenzene	<500	<500	<500	<500	600	<500	[93]

ND - None Detected.

[] - Value reported less than detection limit.

** - Compound detected in lab blank.

TABLE F-4 (continued)
VANTRAN ELECTRIC CORPORATION
PRELIMINARY ASSESSMENT
ANALYTICAL RESULTS SOIL BORING SB-C (SOUTHEAST CORNER OF SITE)

SAMPLE I.D. DEPTH INTERVAL	2018 0-1	2019 1-2	2020 2-3	2021 3-4	2022 4-5	2023 5-6	2024 6-7
<u>TENTATIVELY IDENTIFIED*</u> <u>VOLATILE ORGANICS ug/kg</u>							
Acetic Acid, Methyl Ester	3430	5060	2300	2680	2000	ND	ND
C6 Alkane	3890	ND	ND	3900	ND	ND	ND
Unknown	18040	9600	8600	9025	5500	10824	12050
Urea	ND	11060	ND	ND	ND	ND	ND
Hexane	ND	4790	4300	ND	ND	3640	ND
Unknown	ND	ND	11000	ND	ND	35280	ND
Unknown	ND	ND	1200	ND	ND	ND	ND
C6 Substituted Cycloalkane	ND	ND	600	500	8000	ND	ND
Unknown Hydrocarbon	ND	ND	1900	ND	9600	ND	ND
Unknown Hydrocarbon	ND	ND	930	ND	19000	ND	ND
Dichlorobenzene	ND	ND	23000	ND	ND	ND	ND
C9 Aromatic	ND	ND	ND	2200	16000	ND	ND
C9 Substituted Cyclo Alkane	ND	ND	ND	1460	7900	ND	ND
C8-10 Alkane	ND	ND	ND	12560	ND	ND	ND
Dichlorobenzene	ND	ND	ND	6950	54000	ND	305800
Dichlorobenzene	ND	ND	ND	256100	2300000	ND	ND
C9-10 Alkane or Cyclo Alkane	ND	ND	ND	ND	91000	ND	ND
Nitrogen Containing Alkane	ND	ND	ND	ND	ND	ND	7000
Pentane, 3-Methyl	ND	ND	ND	ND	ND	ND	3630
C-9 Alkane	ND	ND	ND	ND	ND	ND	17630
Cyclic C-9 Hydrocarbon	ND	ND	ND	ND	ND	ND	5980
C-10 Alkane	ND	ND	ND	ND	ND	ND	29500

ND - Not detected.

* - All tentatively identified volatile organics are reported less than detection limits.

TABLE F-4 (continued)
 VANTRAN ELECTRIC CORPORATION
 PRELIMINARY ASSESSMENT
 ANALYTICAL RESULTS SOIL BORING SB-C (SOUTHEAST CORNER OF SITE)

SAMPLE I.D. DEPTH INTERVAL	2018 0-1	2019 1-2	2020 2-3	2021 3-4	2022 4-5	2023 5-6	2024 6-7
SEMI-VOLATILE COMPOUNDS ug/kg							
1,3-Dichlorobenzene	ND	6100	4500	1800	5600	<330	960
1,4-Dichlorobenzene	44000	77000	<330	43000	140000	430	14000
1,2-Dichlorobenzene	2000	6400	<330	1300	7500	<330	890
4-Methyl Phenol	[78]	<330	<330	<330	<330	<330	<330
1,2,4-Trichlorobenzene	460000	300000	2100	27000	170000	4000	55000
2,4,5-Trichlorophenol	[1500]	<1600	<1600	<1600	<1600	<1600	<1600
2-Nitroaniline	[640]	<1600	<1600	<1600	<1600	<1600	<1600
Dimethyl Phthalate	[92]	<330	<330	<330	[130]	<330	<330
Acenaphthylene	[81]	<330	<330	<330	<330	<330	<330
Acenaphthene	[63]	<330	<330	<330	<330	<330	<330
Dibenzofuran	[86]	<330	<330	<330	[20]	<330	<330
Fluorene	[120]	<330	<330	<330	[81]	<330	<330
Phenanthrene	[100]	1500	<330	<330	600	<330	<330
Di-N-Butyl Phthalate	2500	14000	1500	3500	5800	1300	2200
Fluoranthene	[120]	<330	<330	<330	[100]	<330	<330
Pyrene	[49]	<330	<330	<330	<330	<330	<330
Bis(2-Ethyl Hexyl)Phthalate	150000	27000	800	5700	66000	<330	4300
Chrysene	[140]	<330	<330	<330	<330	<330	<330
Di-N-Octyl Phthalate	[12]	<330	<330	<330	<330	<330	<330
Benzo(K)Fluoranthene	[160]	<330	<330	<330	[110]	<330	<330
Naphthalene	<330	410	<330	[49]	350	<330	<330
2-Methyl Naphthalene	<330	560	<330	<330	430	<330	<330
Hexachlorobenzene	<330	9700	<330	<330	2700	<330	<330
Nitrobenzene	<330	<330	<330	<330	[93]	<330	<330
4-Nitroaniline	<1600	<1600	<1600	<1600	[540]	<1600	<1600
N-Nitrosodiphenylamine(1)	<330	<330	<330	<330	[120]	<330	<330
Anthracene	<330	<330	<330	<330	[28]	<330	<330
Butyl Benzyl Phthalate	<330	<330	<330	<330	[52]	<330	<330
Benzo(a)Anthracene	<330	<330	<330	<330	[120]	<330	<330
Benzo(b)Fluoranthene	<330	<330	<330	<330	[110]	<330	<330

- [] - Value reported less than detection limit.
 (1) - cannot be separated from diphenylamine.

TABLE F-4 (continued)
VANTRAN ELECTRIC CORPORATION
PRELIMINARY ASSESSMENT
ANALYTICAL RESULTS SOIL BORING SB-C (SOUTHEAST CORNER OF SITE)

SAMPLE I.D. DEPTH INTERVAL	2018 0-1	2019 1-2	2020 2-3	2021 3-4	2022 4-5	2023 5-6	2024 6-7
<u>TENTATIVELY IDENTIFIED</u> <u>SEMI-VOLATILE ORGANICS*</u> ug/kg							
C-10 Alkane	79000	ND	ND	ND	17000	ND	ND
Unknown Phthalate	110500	ND	ND	ND	ND	ND	ND
Trichlorobenzene	897000	365000	ND	51000	310000	ND	44000
Tetrachlorobenzene	212100	127300	ND	8300	420000	129000	17000
Tetrachlorobenzene	252000	1025500	ND	103000	ND	ND	150000
Tetrachlorobenzene	2400000	ND	ND	ND	ND	ND	ND
Pentachlorobenzene	1065000	450000	ND	45000	210000	20500	31000
Hexachlorobiphenyl	246000	ND	ND	ND	ND	ND	ND
Hexachlorobiphenyl	300000	ND	ND	ND	ND	ND	ND
Hexachlorobiphenyl	247000	ND	ND	ND	ND	ND	ND
Unknown Phthalate	330000	ND	ND	ND	ND	ND	ND
Heptachlorobiphenyl	687000	129000	ND	ND	270000	31200	41000
Octachlorobiphenyl	320000	156000	ND	ND	130000	ND	ND
Octachlorobiphenyl	251000	173500	ND	ND	ND	ND	ND
Octachlorobiphenyl	402000	ND	ND	ND	ND	ND	ND
Nonachlorobiphenyl	68000	ND	ND	ND	ND	ND	ND
Unknown	525000	ND	850000	94000	ND	ND	ND
Unknown	1111200	ND	37000	1400000	ND	ND	ND
Unknown Hydrocarbon	ND	793000	ND	ND	810000	251000	590000
Unknown Hydrocarbon	ND	60200	ND	ND	20000	ND	ND
C8-10 Alkane	ND	152000	ND	ND	ND	52500	ND
Pentachlorobiphenyl	ND	155000	ND	ND	130000	15400	21000
Pentachlorobiphenyl	ND	134000	ND	ND	120000	20700	20000

* - All tentatively identified semi-volatile organics are reported less than detection limit.
ND- None detected.

TABLE F-4 (continued)
VANTRAN ELECTRIC CORPORATION
PRELIMINARY ASSESSMENT
ANALYTICAL RESULTS SOIL BORING SB-C (SOUTHEAST CORNER OF SITE)

SAMPLE I.D. DEPTH INTERVAL	2018 0-1	2019 1-2	2020 2-3	2021 3-4	2022 4-5	2023 5-6	2024 6-7
<u>TENTATIVELY IDENTIFIED SEMI-VOLATILE ORGANICS*</u> ug/kg							
Pentachlorobiphenyl	ND	258000	ND	ND	ND	ND	26000
Hexachlorobiphenyl	ND	198900	ND	ND	170000	20300	26000
Hexachlorobiphenyl	ND	242000	ND	ND	270000	53600	84000
Hexachlorobiphenyl	ND	302500	ND	ND	160000	55600	76000
Heptachlorobiphenyl	ND	204000	ND	ND	120000	22000	16000
Heptachlorobiphenyl	ND	387500	ND	ND	460000	46000	34000
Heptachlorobiphenyl	ND	289000	ND	ND	ND	17700	16000
Halogenated Alkane	ND	ND	53000	ND	ND	ND	ND
C-9 Alkane	ND	ND	45000	82000	ND	115500	ND
C-9 Alkane	ND	ND	40000	5500	ND	ND	ND
Unknown	ND	ND	7200	84000	ND	ND	ND
Halogenated Benzene	ND	ND	4100	ND	ND	ND	ND
Halogenated Benzene	ND	ND	5000	ND	ND	ND	ND
Halogenated Benzene	ND	ND	5700	ND	ND	ND	ND
Unknown	ND	ND	28000	33000	ND	ND	ND
PCB-3 Chlorines	ND	ND	19000	ND	ND	ND	ND
PCB-4 Chlorines	ND	ND	10000	ND	ND	ND	ND
PCB-4 Chlorines	ND	ND	7700	ND	ND	ND	ND
PCB-4 Chlorines	ND	ND	10000	ND	ND	ND	ND
PCB-4 Chlorines	ND	ND	18000	ND	ND	ND	ND
PCB-5 Chlorines	ND	ND	18000	65000	ND	ND	ND
PCB-6 Chlorines	ND	ND	50000	150000	ND	ND	ND
PCB-6 Chlorines	ND	ND	42000	130000	ND	ND	ND
PCB-6 Chlorines	ND	ND	37000	140000	ND	ND	ND
PCB-7 Chlorines	ND	ND	32000	74000	ND	ND	ND

* - All tentatively identified semi-volatile organics are reported less than detection limit.
ND- None detected.

TABLE F-4 (continued)
 VANTRAN ELECTRIC CORPORATION
 PRELIMINARY ASSESSMENT
 ANALYTICAL RESULTS SOIL BORING SB-C (SOUTHEAST CORNER OF SITE)

SAMPLE I.D. DEPTH INTERVAL	2018 0-1	2019 1-2	2020 2-3	2021 3-4	2022 4-5	2023 5-6	2024 6-7
TENTATIVELY IDENTIFIED SEMI-VOLATILE ORGANICS* ug/kg							
C10-19 Alkane	ND	72700	ND	ND	ND	ND	ND
Alkane Hydrocarbon	ND	ND	ND	83000	ND	ND	ND
C-9 Aromatic	ND	ND	ND	12000	ND	ND	ND
Oxygenated C-7	ND	ND	ND	9900	ND	ND	ND
PCB-5 Chlorines	ND	ND	ND	60000	ND	ND	ND
PCB-7 Chlorines	ND	ND	ND	120000	ND	ND	ND
PCB-8 Chlorines	ND	ND	ND	43000	ND	ND	ND
PCB-8 Chlorines	ND	ND	ND	21000	ND	ND	ND
C9-10 Alkane	ND	ND	ND	ND	59000	146500	ND
C9-10 Alkane	ND	ND	ND	ND	ND	108500	ND
C10-11 Alkane	ND	ND	ND	ND	160000	ND	ND
Xylene	ND	ND	ND	ND	33000	ND	ND
C-19 Alkane	ND	ND	ND	ND	90000	ND	ND
Hexachlorobiphenyl	ND	ND	ND	ND	250000	48400	23000
C-6 Ketone	ND	ND	ND	ND	ND	279500	ND
C-7 Alcohol	ND	ND	ND	ND	ND	304000	ND
C-6-7 Ketone	ND	ND	ND	ND	ND	45000	ND
Hexachlorobiphenyl	ND	ND	ND	ND	ND	ND	17000
Hexachlorobiphenyl	ND	ND	ND	ND	ND	ND	57000
Heptachlorobiphenyl	ND	ND	ND	ND	ND	ND	64000
Heptachlorobiphenyl	ND	ND	ND	ND	ND	ND	27000

* - All tentatively identified semi-volatile organics are reported less than detection limit.
 ND- None detected.

TABLE F-5
VANTRAN ELECTRIC CORPORATION
PRELIMINARY ASSESSMENT
ANALYTICAL RESULTS SOIL BORING SB-D (IN DRAINAGEWAY SOUTH OF SITE)

SAMPLE I.D. DEPTH INTERVAL	2025 0-1	2026 1-2	2027 2-3	2028 3-4	2029 4-5	2030 5-6	2031 6-7
PARAMETER mg/kg★							
Aluminum, Total	6510	7270	11900	6160	8880	6610	6470
Antimony, Total	<1.95(1,2)	<1.94(1)	<1.98(1)	<1.97(1)	<1.99(1)	<1.77(1)	<1.98(1)
Arsenic, Total	6.22	6.86	4.95	9.16	5.81	2.92	3.43
Barium, Total	103	138	103	254	177	121	114
Beryllium, Total	0.439	0.621	0.425	0.956	0.499	0.470	0.456
Cadmium, Total	1.80(1)	1.00(1)	1.91(1)	1.63(1)	1.63(1)	2.48(1)	0.614(1)
Calcium, Total	24,900	1760	2910	1390	2560	952	1130
Chromium, Total	10.6(1)	8.58(1)	13.6(1)	20.8(1)	11.8(1)	8.27(1)	7.86(1)
Cobalt, Total	5.27	6.89	5.24	21.5	9.17	5.94	2.87
Copper, Total	13.4	6.21	12.5	5.52	10.4	5.59	9.22
Iron, Total	11300	12400(1)	19100	27000	19400	10900	6430
Lead, Total	66	16	19	44	26	11	7.9
Magnesium, Total	2260	719	216	813	1790	1100	1160
Manganese, Total	680	1030	351	3230	1410	562	264
Mercury, Total	<0.05	<0.05	0.051	<0.05	<0.05	<0.05	<0.05
Nickel, Total	8.85	6.50	10.7	10.7	10.1	7.31	8.20
Potassium, Total	1100	1500	1900(2)	840	720	590	400(2)
PCBs, Total	4	<1	<1	<1	<1	<1	<1
Aroclor, 1016	<1	<1	<1	<1	<1	<1	<1
Aroclor, 1221	<1	<1	<1	<1	<1	<1	<1
Aroclor, 1242	<1	<1	<1	<1	<1	<1	<1
Aroclor, 1248	<1	<1	<1	<1	<1	<1	<1
Aroclor, 1254	<1	<1	<1	<1	<1	<1	<1
Aroclor, 1260	4	<1	<1	<1	<1	<1	<1
Selenium, Total	<1.00(1,2)	<0.98(1,2)	<1.00(1)	<0.99(1)	<1.00(1)	<0.96(1)	<0.98(1)
Silver, Total	<2.93	<2.91	6.30	<2.96	<2.99	<2.66	<2.97
Sodium, Total	115	57.3	193	109	174	163	161
Solids, Total	82.5%	85.2%	81.8%	83.0%	82.6%	83.6%	86.0%
Thallium, Total	<0.73	<0.73	<0.74	<0.74	<0.75	<0.67	<0.74
Tin, Total	<98.9	NA	NA	NA	NA	NA	NA
Vanadium, Total	19.7	22.6	25.3	48.0	27.6	19.3	12.9
Zinc, Total	143	22.2	50	32.1	33.5	19.1	26.7

(1) Spike recovery not within control limit.

(2) Severe matrix interference.

TABLE F-5 (continued)
 VANTRAN ELECTRIC CORPORATION
 PRELIMINARY ASSESSMENT
 ANALYTICAL RESULTS SOIL BORING SB-D (IN DRAINAGEWAY SOUTH OF SITE)

SAMPLE I.D. DEPTH INTERVAL	2025 0-1	2026 1-2	2027 2-3	2028 3-4	2029 4-5	2030 5-6	2031 6-7
<u>VOLATILE COMPOUNDS</u> ug/kg							
Acetone	<10	<10	<10	<10	<10	13	16
<u>TENTATIVELY IDENTIFIED VOLATILE COMPOUNDS</u> ug/kg	ND	ND	ND	ND	ND	ND	ND
<u>SEMI-VOLATILE COMPOUNDS</u> ug/kg	ND	ND	ND	ND	ND	ND	ND
<u>UNKNOWN/ TENTATIVELY IDENTIFIED COMPOUNDS</u> Estimated Concentrations (ug/kg)							
1,1,2,2-Tetrachloroethane	810**	720**	620**	660**	680**	730**	750**
Unknown	950**	930**	770**	ND	610**	310	ND
Unknown	540	680	ND	ND	ND	ND	ND
Unknown	510	1300	ND	ND	ND	ND	ND
Unknown	950	390	ND	ND	ND	ND	ND
Unknown	2100	ND	ND	ND	ND	ND	ND

** - Detected in Laboratory Blank.

ND - Not detected.

TABLE F-6
VANTRAN ELECTRIC CORPORATION
PRELIMINARY ASSESSMENT
ANALYTICAL RESULTS SOIL BORING FOR MONITOR WELL MW-A (NORTH OF FACILITY)

SAMPLE I.D. DEPTH INTERVAL	2004* 0-1.5	2005 4.5-6.0	2006 9.0-10.5	2007 13.5-15	2008* 18-20
PARAMETERS mg/kg★					
Aluminum, Total	784	4810	4110	931	764
Antimony, Total	<1.95(1)	<1.99(1)	<1.97(1)	<1.87(1)	<1.98(1)
Arsenic, Total	1.15(1)	2.35(1)	3.15(1)	1.13(1)	1.88(1)
Barium, Total	6.74	88.5	46.1	6.97	8.80
Beryllium, Total	<0.098(1)	<0.100(1)	0.217(1)	<0.093(1)	<0.099(1)
Cadmium, Total	0.322(1)	0.667(1)	0.709	0.719(1)	0.653(1)
Calcium, Total	2240	1300	5040	2530	31500
Chromium, Total	3.00(1)	8.05(1)	14.4	2.59	2.47(1)
Cobalt, Total	<1.95	<1.99	2.17	<1.87	1.98
Copper, Total	3.75	4.59	9.49	4.31	4.36
Iron, Total	5120	3600	5970	3830	2470
Lead, Total	<5.0	7.0	7.9	<5.0	11
Magnesium, Total	1030	722	851	1020	8780
Manganese, Total	138	24.4	42.4	133	153
Mercury, Total	<0.05	<0.05	<0.05	<0.05	<0.05
Nickel, Total	3.17(1)	5.86(1)	6.27(1)	2.89(1)	3.55(1)
Potassium, Total	300	750(2)	810	730	300
PCBs, Total	<1	<1	<1	<1	<1
Aroclor, 1016	<1	<1	<1	<1	<1
Aroclor, 1221	<1	<1	<1	<1	<1
Aroclor, 1242	<5	<1	<1	<1	<1
Aroclor, 1248	<1	<1	<1	<1	<1
Aroclor, 1254	<1	<1	<1	<1	<1
Aroclor, 1260	<1	<1	<1	<1	<1
Selenium, Total	<0.391(1)	<0.398(1)	<0.394(1)	<0.373(1)	<0.396(1)
Silver, Total	<2.93(1)	<2.99(1)	<2.96(1)	<2.00(1)	32.4(1)
Sodium, Total	430	209	112	39.2	51.4
Solids, Total	86.4%	90.8%	89.2%	90.4%	82.5%
Thallium, Total	<0.97	<1.00	<0.96	<0.93	<0.88
Vanadium, Total	2.83(1)	12.3(1)	18.1(1)	3.55(1)	2.97(1)
Zinc, Total	13.5(1)	10.5(1)	43.9(1)	14.3(1)	29.0(1)
VOLATILE COMPOUNDS ug/kg					
Acetone	<10	67	2500	120	200

* - Split sample with IEPA representative.

(1) Spike recovery not within control limit.

(2) Severe matrix interference.

★ Dry weight basis.

TABLE F-6 (continued)
VANTRAN ELECTRIC CORPORATION
PRELIMINARY ASSESSMENT
ANALYTICAL RESULTS SOIL BORING FOR MONITOR WELL MW-A (NORTH OF FACILITY)

SAMPLE I.D. DEPTH INTERVAL	2004* 0-1.5	2005 4.5-6.0	2006 9.0-10.5	2007 13.5-15	2008* 18-20
<u>TENTATIVELY IDENTIFIED VOLATILE COMPOUNDS</u> Estimated Concentrations (ug/kg)					
2-Propanol	ND	ND	290	22	11
<u>SEMIVOLATILE COMPOUNDS</u> ug/kg	ND	ND	ND	ND	ND
<u>TENTATIVELY IDENTIFIED ORGANIC SEMIVOLATILE COMPOUNDS</u> Estimated Concentrations (ug/kg)					
Unknown	ND	640	520	590	640

* - Split sample with IEPA representative.
ND - Not Detected.

TABLE F-7
VANTRAN ELECTRIC CORPORATION
PRELIMINARY ASSESSMENT
ANALYTICAL RESULTS SOIL BORING FOR MONITOR WELL MW-B
(NORTHWEST CORNER OF SITE)

SAMPLE I.D. DEPTH INTERVAL	2014 0-1.5	2015 4.5-6	2016 9-10.5	2017 13.5-15
<u>PARAMETER</u> mg/kg				
Aluminum, Total	7366	4510	1874	938
Antimony, Total	<0.23	<0.22	<0.24	<0.22
Arsenic, Total	6.4	18	3.0	<0.89
Barium, Total	55	18	<19	<18
Beryllium, Total	0.64	0.72	0.38	<0.4
Cadmium, Total	0.55	0.90	<0.38	<0.36
Calcium, Total	-	-	-	-
Chromium, Total	14	9.0	5.7	4.5
Cobalt, Total	7.4	5.4	<2.8	<2.7
Copper, Total	13	7.2	<0.9	<0.8
Iron, Total	10128	13529	1998	3662
Lead, Total	16	8.2	4.2	2.9
Magnesium, Total	-	-	-	-
Manganese, Total	253	78	34	143
Mercury, Total	<0.08	<0.09	<0.07	<0.07
Nickel, Total	6.4	9.0	1.9	1.8
Potassium, Total	-	-	-	-
PCBs, Total Detectable (ug/kg)	750	710	210	1200
Aroclor, 1016	<240	<290	<210	<370
Aroclor, 1221	<240	<290	<210	<370
Aroclor, 1242	<240	<290	<210	<370
Aroclor, 1232	[180]	[190]	[120]	[190]
Aroclor, 1248	<240	<290	<210	<370
Aroclor, 1254	<240	<290	<210	<370
Aroclor, 1260	750	710	210	1200
Selenium, Total	<0.46	<0.45	<0.48	<0.45
Silver, Total	<0.37	<0.36	<0.38	<0.36
Sodium, Total	-	-	-	-
Thallium, Total	<0.19	<0.18	<0.19	<0.20
Vanadium, Total	25	22	8.6	6.8
Zinc, Total	57	23	22	13

□ - Value reported less than detection limit.

TABLE F-7 (continued)
 VANTRAN ELECTRIC CORPORATION
 PRELIMINARY ASSESSMENT
 ANALYTICAL RESULTS SOIL BORING FOR MONITOR WELL MW-B
 (NORTHWEST CORNER OF SITE)

SAMPLE I.D. DEPTH INTERVAL	2014 0-1.5	2015 4.5-6	2016 9-10.5	2017 13.5-15
<u>VOLATILE COMPOUNDS</u> ug/kg				
Methylene Chloride	3800**	2400	4000**	4500**
Acetone	2500**	4200	2400**	5800**
Chloroform	500**	[460]	570**	880**
Toluene	1600**	1400	2000**	2300**
Total Xylenes	480**	510	600**	2800**
2-Butanone	<950	6000	11000	<1000
Benzene	<480	[240]	[450]	570**
Ethylbenzene	<480	[180]	[170]	530**
1,1-Dichloroethene	<480	<500	[280]	[170]
Trichloroethene	<480	<500	[230]	[310]
Chlorobenzene	<480	<500	[200]	[350]
Bromomethane	<950	<1000	<1000	[140]
Vinyl Chloride	<950	<1000	<1000	[48]
Chloroethane	<950	<1000	<1000	[150]
Carbon Disulfide	<480	<500	<500	[380]
1,1-Dichloroethane	<480	<500	<500	[220]
Trans-1,2-Dichloroethene	<480	<500	<500	[200]
1,1,1-Trichloroethane	<480	<500	<500	[230]
1,2-Dichloropropane	<480	<500	<500	[260]
Cis-1,3-Dichloropropene	<480	<500	<500	[290]
Tetrachloroethene	<480	<500	<500	[370]
1,1,2,2-Tetrachloroethane	<950	<1000	<1000	[220]
Styrene	<480	<500	<500	600

** - Compound detected in lab blank.

□ - Value reported less than detection limit.

TABLE F-7 (continued)
 VANTRAN ELECTRIC CORPORATION
 PRELIMINARY ASSESSMENT
 ANALYTICAL RESULTS SOIL BORING FOR MONITOR WELL MW-B
 (NORTHWEST CORNER OF SITE)

SAMPLE I.D. DEPTH INTERVAL	2014 0-1.5	2015 4.5-6	2016 9-10.5	2017 13.5-15
<u>TENTATIVELY IDENTIFIED VOLATILE ORGANICS ug/kg*</u>				
Dimethyl Benzene	2100	ND	ND	ND
Hexane	3760	ND	3150	3880
Unknown	5440	550	6430	5570
Unknown	10375	3400	5420	850
Unknown	38430	150	655	5380
Unknown	1560	2290	730	ND
Unknown	ND	3250	ND	ND
Methyl Acetate	ND	1160	2560	ND
1,1,2-Trichloro-1,2,2-Trifluoro Ethane	ND	ND	1170	ND
<u>SEMI-VOLATILE COMPOUNDS ug/kg</u>				
Di-N-Butylphthalate	2400	2100	[230]	1500
Bis(2-Ethyl Hexyl)Phthalate	<330	<330	390	<330

ND - Compound not detected.

□ - Value reported less than detection limit.

* - All tentatively identified volatile organics are reported less than detection limit.

TABLE F-7 (continued)
VANTRAN ELECTRIC CORPORATION
PRELIMINARY ASSESSMENT
ANALYTICAL RESULTS SOIL BORING FOR MONITOR WELL MW-B
(NORTHWEST CORNER OF SITE)

SAMPLE I.D. DEPTH INTERVAL	2014 0-1.5	2015 4.5-6	2016 9-10.5	2017 13.5-15
<u>TENTATIVELY IDENTIFIED SEMI-VOLATILE COMPOUNDS ug/kg*</u>				
C-6 Alkane	8030	ND	ND	ND
Oxygenated C-7	1150000	12670	ND	ND
C-9 Alkane	21100	34670	5400	15400
C-9 Alkane	26770	ND	ND	6200
Benzenedicechoxylic Acid Derv.	3570	ND	ND	ND
Alkane Hydrocarbon	1000	ND	ND	ND
Unknown Hydrocarbon	1000	ND	13700	5750
Methyl Subs Hexane	1730	ND	ND	ND
Oxygenated C-10	1050	ND	ND	ND
Unknown	36800	16900	ND	18600
Unknown	21450	20950	ND	ND
Unknown	19450	3020	ND	ND
Unknown	18000	33100	ND	ND
Unknown	1900	1307000	ND	ND
Unknown	21100	86450	ND	ND
Unknown	2080	9800	ND	ND
Unknown	1520	680	ND	ND
Unknown	2000	1800	ND	ND
Unknown	1500	1200	ND	ND
Unknown	2800	ND	ND	ND
Oxygenated C-6	ND	41100	ND	ND
C-10 Alkane	ND	28950	1800	ND
C-10 Alkane	ND	550	ND	ND
C-10 Alkane	ND	650	ND	ND

ND - Compound not detected.

* - All tentatively identified semi-volatile organics are reported less than detection limit.

TABLE F-7 (continued)
 VANTRAN ELECTRIC CORPORATION
 PRELIMINARY ASSESSMENT
 ANALYTICAL RESULTS SOIL BORING FOR MONITOR WELL MW-B
 (NORTHWEST CORNER OF SITE)

SAMPLE I.D. DEPTH INTERVAL	2014 0-1.5	2015 4.5-6	2016 9-10.5	2017 13.5-15
<u>TENTATIVELY IDENTIFIED SEMI-VOLATILE COMPOUNDS ug/kg*</u>				
C-4 Alkane Containing O ₂ +N ₂	ND	1800	ND	ND
Chlorinated C4 Alkane	ND	5050	ND	ND
Propanoic Acid Derv.	ND	26950	ND	ND
Benzenedicarboxylic Acid Derv.	ND	2970	ND	ND
C6-8 Ketone	ND	ND	1210	ND
Unknown Hydrocarbon	ND	ND	457000	ND
C6-7 Ketone	ND	ND	1770	56600
C7 Ketone	ND	ND	860	ND
Unknown Alkane	ND	ND	960	24200
C8-9 Alkane	ND	ND	1280	ND
Unknown Alkane	ND	ND	1190	ND
Unknown Hydrocarbon	ND	ND	31100	3020
Unknown Phthalate	ND	ND	4120	2400
Unknown Hydrocarbon	ND	ND	7830	1400
Unknown Hydrocarbon	ND	ND	1320	1200
Unknown Hydrocarbon	ND	ND	1430	1600
Unknown Hydrocarbon	ND	ND	1570	1100
C10+Hydrocarbon	ND	ND	6880	ND
C6 Ketone	ND	ND	ND	629500
C9-10 Alkane	ND	ND	ND	70400
C9 Alkane	ND	ND	ND	51000
C9 Alkane	ND	ND	ND	55700
C9-10 Alkane	ND	ND	ND	46700
Unknown Hydrocarbon	ND	ND	ND	1510
Unknown Hydrocarbon	ND	ND	ND	1850
Unknown Hydrocarbon	ND	ND	ND	3300

ND - Compound not detected.

* - All tentatively identified semi-volatile organics are reported less than detection limit.

TABLE F-8
VANTRAN ELECTRIC CORPORATION
PRELIMINARY ASSESSMENT
ANALYTICAL RESULTS SOIL BORING FOR MONITOR WELL MW-C
(NORTHEAST CORNER OF SITE)

SAMPLE I.D. DEPTH INTERVAL	2009 0-1.5	2010 6-7.5	2011 9-10.5	2012 12-13.5	2013D 12-13.5
<u>PARAMETER</u> mg/kg★					
Aluminum, Total	13800	839	2120	806	1440
Antimony, Total	<1.86(1)	<1.99(1)	<1.96(1)	<1.99(1)	<1.92(1)
Arsenic, Total	13.9(1)	2.36(1)	2.38(1)	2.60	3.47
Barium, Total	85.6	158	18.6	5.68	14.9
Beryllium, Total	0.749	<0.098	0.098	0.139	0.096
Cadmium, Total	2.97	2.40	0.727(1)	0.328(1)	0.326(1)
Calcium, Total	7780	2160	804	36100	34700
Chromium, Total	22.1	14.2	4.48(1)	3.05(1)	3.05(1)
Cobalt, Total	4.29	<1.96	3.04	<1.99	2.02
Copper, Total	16.2	9.47	5.11	3.28	7.20
Iron, Total	27000	20500	11700	1740	4620
Lead, Total	24.2	11.9	<5.0	10	11
Magnesium, Total	3400	2970	733	8330	11300
Manganese, Total	385	319	210	121	128
Mercury, Total	<0.05	<0.05	<0.05	<0.05	<0.05
Nickel, Total	13.5	13.4	7.02	3.85	4.87
Potassium, Total	1500 (1)(2)	810(1)(2)(3)	470(3)	530	460(3)
PCBs, Total Detectable	<1	<1	1	<1	<1
Aroclor, 1016	<1	<1	<1	<1	<1
Aroclor, 1221	<1	<1	<1	<1	<1
Aroclor, 1242	<1	<1	1	<1	<1
Aroclor, 1248	<1	<1	<1	<1	<1
Aroclor, 1254	<1	<1	<1	<1	<1
Aroclor, 1260	<1	<1	<1	<1	<1
Selenium, Total	<0.37(1)(3)	<0.40(1)	<0.99(1)(3)	<0.98(1)(3)	<0.97(1)(3)
Silver, Total	<2.79	<2.98	<2.95	<2.99	<2.88
Sodium, Total	153	186	45	94.5	105
Solids, Total	85.9%	85.1%	91.6%	84.5%	84.7%
Thallium, Total	<0.70	<0.75	<0.74	<0.75	<0.72
Tin, Total	<99.6	99.7	<99.5	<98.5	<93.4
Vanadium, Total	25.8	3.04	5.70	2.59	5.57
Zinc, Total	57.6(2)	44.7	20.2	11.8	18.1
<u>VOLATILE COMPOUNDS</u> µg/kg					
Methylene Chloride	7	<5	<5	<5	5
Acetone	11	10	32	<10	120
<u>UNKNOWN/TENTATIVE- LY IDENTIFIED</u> <u>VOLATILE COMPOUNDS</u> µg/kg	ND	ND	ND	ND	ND
<u>SEMI-VOLATILE</u> <u>ORGANICS</u> µg/kg	ND	ND	ND	ND	ND

ND - None detected.

** - Detected in laboratory blank.

★ - Dry weight basis.

(1) Spike recovery not within control limit

(2) Duplicate not within control limit

(3) Severe matrix interference

TABLE F-8 (continued)
 VANTRAN ELECTRIC CORPORATION
 PRELIMINARY ASSESSMENT
 ANALYTICAL RESULTS SOIL BORING FOR MONITOR WELL MW-C
 (NORTHEAST CORNER OF SITE)

SAMPLE I.D. DEPTH INTERVAL	2009 0-1.5	2010 6-7.5	2011 9-10.5	2012 12-13.5	2013D 12-13.5
<u>UNKNOWN/ TENTATIVELY IDENTIFIED SEMI- VOLATILE COMPOUNDS</u>					
Est. Concentrations (µg/kg)	1000**	950**	760**	530**	760 **
	540**	580**	640**	ND	730 **
1,1,2,2-Tetrachloroethane	ND	540**	ND	ND	ND
Unknown					
Unknown					

ND - None detected.

** - Detected in laboratory blank.

TABLE F-9
VANTRAN ELECTRIC CORPORATION
PRELIMINARY ASSESSMENT
ANALYTICAL RESULTS SOIL BORING FOR MONITOR WELL MW-D
(SOUTH OF SITE)

SAMPLE I.D. DEPTH INTERVAL	2032 0-1.5	2033 4.5-6	2034 9-10.5	2035 12-13.5
<u>PARAMETER mg/kg ★</u>				
Aluminum, Total	7900	12900	3030	2710
Antimony, Total	<1.84(1)	<1.95(1)	<1.97(1)	<1.94(1)
Arsenic, Total	8.08	7.58	2.79	0.96
Barium, Total	102	209	18.1	22.0
Beryllium, Total	0.404	0.498	0.197	0.126
Cadmium, Total	1.39	2.44	1.11	0.330
Calcium, Total	2500	2220	1970	19300
Chromium, Total	9.18	7.91	5.78	4.38
Cobalt, Total	5.88	<1.95	2.17	<1.94
Copper, Total	2.48	3.52	5.87	4.26
Iron, Total	13300	12600	20500	4300
Lead, Total	12	13	11	8.7
Magnesium, Total	1320	2410	11600	6790
Manganese, Total	405	57.3	144	110
Mercury, Total	<0.05	<0.05	<0.05	<0.05
Nickel, Total	10.1	15.1	7.42	6.14
Potassium, Total	620(1)(3)	1000(1)	810(1)	420(1)
Selenium, Total	<0.37	<0.39	<0.39(3)	<0.39
PCBs, Total	<1	<1	<1	<1
Aroclor, 1016	<1	<1	<1	<1
Aroclor, 1221	<1	<1	<1	<1
Aroclor, 1242	<1	<1	<1	<1
Aroclor, 1248	<1	<1	<1	<1
Aroclor, 1254	<1	<1	<1	<1
Aroclor, 1260	<1	<1	<1	<1
Silver, Total	<2.75(1)	<2.93(1)	5.56(1)	4.10(1)
Sodium, Total	321	215	90.7	83.5
Solids, Total	82.5%	82.0%	80.6%	81.1%
Thallium, Total	<0.69	<0.73	<0.74	<0.73
Vanadium, Total	19.8	18.1	11.5	5.83
Zinc, Total	36.5(1)	36.1(1)	29.3(1)	21.1(1)
<u>VOLATILE COMPOUNDS ug/kg</u>				
Acetone	11	<10	<10	<10
<u>UNKNOWN/TENTATIVELY IDENTIFIED VOLATILE COMPOUNDS ug/kg</u>	ND	ND	ND	ND
<u>SEMI-VOLATILE COMPOUNDS ug/kg</u>	ND	ND	ND	ND

ND - Not detected.

** - Appeared in laboratory blank.

★ - Dry weight basis.

(1) Spike recovery not within control limit.

(2) Duplicate not within control limit.

(3) Severe matrix interference.

TABLE F-9 (continued)
 VANTRAN ELECTRIC CORPORATION
 PRELIMINARY ASSESSMENT
 ANALYTICAL RESULTS SOIL BORING FOR MONITOR WELL MW-D
 (SOUTH OF SITE)

SAMPLE I.D. DEPTH INTERVAL	2032 0-1.5	2033 4.5-6	2034 9-10.5	2035 12-13.5
<u>UNKNOWN/ TENTATIVELY IDENTIFIED SEMI-VOLATILE COMPOUNDS</u> Est. Concentrations (µg/kg)				
1,1,2,2-Tetrachloroethane	400 **	410 **	610 **	480 **
Unknown	400	530	420	820
Unknown	1600 **	900 **	650 **	1100 **
Unknown	ND	410 **	ND	ND

ND - Not detected.

** - Appeared in laboratory blank.

TABLE F-10
VANTRAN ELECTRIC CORPORATION
PRELIMINARY ASSESSMENT
ANALYTICAL RESULTS
PCB SURFACE WIPE SAMPLES
CONCRETE SLAB

SAMPLE I.D. LOCATION	1000 COOLING RACK WS-1	1001 SW CORNER PAD WS-2	1002 W SIDE BACK PAD WS-3	1003 E SIDE BACK PAD WS-4	1004 TANK AREA WS-5	2003* SEDIMENT ON PAD SB-9
<u>PARAMETER</u> ug/100 cm ²						
Aroclor 1016	<1	<1	<100	<100	<100	<5
Aroclor 1221	<1	<1	<100	<100	<100	<5
Aroclor 1242	<1	<1	<100	<100	<100	<5
Aroclor 1248	1	1	<100	<100	<100	50
Aroclor 1254	<1	<1	<100	<100	<100	5
Aroclor 1260	1	12	5280	4750	3670	124

*Sample #2003 was collected as a sediment sample, as the designated wipe location was disintegrated concrete, units of measure mg/kg.

TABLE F-11
VANTRAN ELECTRIC CORPORATION
PRELIMINARY ASSESSMENT
ANALYTICAL RESULTS
GROUNDWATER SAMPLING

SAMPLE I.D. MONITORING WELL DATE	3000 MW-D 5/13/87	3001 MW-C 5/13/87	3002 MW-A 5/13/87	3003 MW-B 5/13/87
<u>PARAMETER mg/l</u>				
Aluminum, Total	0.222	0.070	0.115	0.111
Antimony, Total	<0.020	<0.020	<0.020	<0.020
Arsenic, Total	<0.004	<0.004	<0.004	<0.004
Barium, Total	0.069	<0.050	<0.050	<0.050
Beryllium, Total	<0.001	<0.001	<0.001	<0.001
Cadmium, Total	0.041	0.010	0.013	<0.003
Calcium, Total	90.1	85.6	85.7	78.2
Chromium, Total	<0.020	<0.020	<0.020	<0.020
Cobalt, Total	<0.020	<0.020	<0.020	<0.020
Copper, Total	<0.020	<0.020	<0.020	<0.020
Iron, Total	1.40	0.387	0.421	0.567
Lead, Total	0.07	0.05	0.07	0.05
Magnesium, Total	30.2	30.6	27.6	23.0
Manganese, Total	0.018	0.018	0.014	0.032
Mercury, Total	<0.0005	<0.0005	<0.0005	<0.0005
Nickel, Total	0.023	<0.020	<0.020	<0.020
PCBs, Total	<0.001	<0.001	<0.001	<0.001
Aroclor 1016	<0.001	<0.001	<0.001	<0.001
Aroclor 1221	<0.001	<0.001	<0.001	<0.001
Aroclor 1242	<0.001	<0.001	<0.001	<0.001
Aroclor 1248	<0.001	<0.001	<0.001	<0.001
Aroclor 1254	<0.001	<0.001	<0.001	<0.001
Aroclor 1260	<0.001	<0.001	<0.001	<0.001
Potassium, Total	2.4	2.8	2.8	2.1
Selenium, Total	<0.004	<0.004	<0.004	<0.004
Silver, Total	<0.030	<0.030	<0.030	<0.030
Sodium, Total	27.1	47.4	29.3	19.1
Thallium, Total	<0.010	<0.010	<0.010	<0.010
Tin, Total	1.50	<1.00	<1.00	<1.00
Vanadium, Total	<0.010	<0.010	<0.010	<0.010
Zinc, Total	0.129	0.030	0.062	0.038
<u>VOLATILE COMPOUNDS ug/l</u>				
1,1,1-Trichloroethane	<5	<5	<5	10
<u>SEMI-VOLATILE COMPOUNDS ug/l</u>	ND	ND	ND	ND

ND- None detected.

TABLE F-11 (continued)
 VANTRAN ELECTRIC CORPORATION
 PRELIMINARY ASSESSMENT
 ANALYTICAL RESULTS
 GROUNDWATER SAMPLING

SAMPLE I.D. MONITORING WELL DATE	3000 MW-D 5/13/87	3001 MW-C 5/13/87	3002 MW-A 5/13/87	3003 MW-B 5/13/87
<u>UNKNOWN/TENATIVELY IDENTIFIED SEMI-VOLATILE COMPOUNDS</u> Est. Concentrations (µg/l)				
Unknown	13	3.8	9.9	6.7
Unknown	64**	81**	47**	29**
Unknown	20**	20**	14**	17**
Unknown	13**	24**	9**	13**

ND - None detected.

** - Detected in lab blank.

TABLE F-12
VANTRAN ELECTRIC CORPORATION
PRELIMINARY ASSESSMENT
SAMPLING/ANALYTICAL RESULTS
DECONTAMINATION RINSATE

SAMPLE I.D. DRUM # DATE	3004 1 5/14/87	3005 2 5/14/87	3006 3 5/14/87	3007 8 5/14/87	3008 5 5/14/87	3009 9 5/14/87	3010 10 5/14/87
PARAMETER mg/l							
Aluminum, Total	0.388	0.099	0.045	0.217	0.067	<0.030	<0.030
Antimony, Total	<0.020	<0.020	<0.020	0.063	<0.020	<0.020	0.034
Arsenic, Total	<0.004	<0.004	<0.010(3)	<0.010(3)	<0.010(3)	<0.004	<0.010(3)
Barium, Total	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Beryllium, Total	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Cadmium, Total	0.007	0.065	0.006	0.007	0.006	0.005	0.005
Calcium, Total	60.3	12.8	14.3	45.9	39.5	43.0	18.6
Chromium, Total	0.063	<0.020	<0.020	<0.020	<0.020	0.021	<0.020
Cobalt, Total	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Copper, Total	0.027	0.040	<0.020	0.028	0.030	<0.020	<0.020
Iron, Total	<0.030	0.304	0.526	0.626	1.17	0.064	0.186
Lead, Total	0.05	0.05	0.05	0.10	0.05	0.05	0.05
Magnesium, Total	<0.200	4.19	18.7	12.7	25.4	0.300	17.3
Manganese, Total	<0.010	<0.010	0.088	0.108	0.155	<0.010	0.115
Mercury, Total	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Nickel, Total	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
PCBs, Total Detectable	0.002	0.027	<0.001	0.227	<0.001	<0.001	0.342
Aroclor 1016	<0.001	<0.001	<0.001	<0.1	<0.001	<0.001	<0.1
Aroclor 1221	<0.001	<0.001	<0.001	<0.1	<0.001	<0.001	<0.1
Aroclor 1242	0.001	0.013	<0.001	0.148	<0.001	<0.001	0.124
Aroclor 1248	<0.001	<0.001	<0.001	<0.1	<0.001	<0.001	<0.1
Aroclor 1254	<0.001	<0.001	<0.001	<0.1	<0.001	<0.001	<0.1
Aroclor 1260	0.001	0.014	<0.001	0.079	<0.001	<0.001	0.218
Potassium, Total	25	15	22	16	16	23	5.6
Selenium, Total	<0.004	<0.004	<0.010(3)	<0.010(3)	<0.010(3)	<0.004	<0.010(3)
Silver, Total	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
Sodium, Total	163	603	508	869	800	118.2	506
Thallium, Total	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Tin, Total	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Vanadium, Total	0.016	0.045	<0.010	0.034	0.010	0.013	0.017
Zinc, Total	0.014	0.227	0.434	1.94	4.23	0.042	0.784

3) Severe matrix interference.

TABLE F- (continued)
 VANTRAN ELECTRIC CORPORATION
 PRELIMINARY ASSESSMENT
 SAMPLING/ANALYTICAL RESULTS
 DECONTAMINATION RINSATE

SAMPLE I.D. DRUM # DATE	3004 1 5/14/87	3005 2 5/14/87	3006 3 5/14/87	3007 8 5/14/87	3008 5 5/14/87	3009 9 5/14/87	3010 10 5/14/87
<u>UNKNOWN/TENTATIVELY IDENTIFIED SEMI-VOLATILE COMPOUNDS</u> Est. Concentrations (µg/l)							
Trichlorobenzene	-	-	-	46	-	-	-
Tetrachloro Benzene	-	-	-	51	-	-	-
Trichloro-1,1'-Biphenyl	-	-	-	28	-	-	-
Trichloro-1,1'-Biphenyl	-	-	-	30	-	-	-
Pentachloro-1,1'-Biphenyl	-	-	-	43	-	-	-
Pentachloro-1,1'-Biphenyl	-	-	-	41	-	-	-
Hexachloro-1,1'-Biphenyl	-	-	-	53	-	-	250
Hexachloro-1,1'-Biphenyl	-	-	-	65	-	-	-
Aroclor 1254	-	-	-	23	-	-	-
Aroclor 1254	-	-	-	27	-	-	-
Aroclor 1254	-	-	-	44	-	-	-
Hexachloro-1,1'-Biphenyl	-	-	-	49	-	-	-
Heptachloro-1,1'-Biphenyl	-	-	-	21	-	-	250
Heptachloro-1,1'-Biphenyl	-	-	-	20	-	-	180
Octachloro-1,1'-Biphenyl	-	-	-	18	-	-	-
Propyloctyl Benzene	-	-	-	-	8	-	-
Pentyl Heptyl Benzene	-	-	-	-	7.9	-	-
Butyloctyl Benzene	-	-	-	-	12	-	-
Butyl Nonyl Benzene	-	-	-	-	8.5	-	-
Unknown	-	-	-	-	-	5.9	1000
Unknown	-	-	-	-	-	7.1	200
Unknown	-	-	-	-	-	8.0	160
Unknown	-	-	-	-	-	-	590
Unknown	-	-	-	-	-	-	310
Unknown	-	-	-	-	-	-	210
Unknown	-	-	-	-	-	-	310
Unknown	-	-	-	-	-	-	200
Unknown	-	-	-	-	-	-	180
Unknown	-	-	-	-	-	-	560
Octamethyl-Cyclotetrasiloxane	-	-	-	-	-	-	250
Decamethyl-Cyclopentasiloxane	-	-	-	-	-	-	160
Dodecamethyl-Cyclohexasiloxane	-	-	-	-	-	-	-

TABLE F-12 (continued)
VANTRAN ELECTRIC CORPORATION
PRELIMINARY ASSESSMENT
SAMPLING/ANALYTICAL RESULTS
DECONTAMINATION RINSATE

SAMPLE I.D. DRUM # DATE	3004 1 5/14/87	3005 2 5/14/87	3006 3 5/14/87	3007 8 5/14/87	3008 5 5/14/87	3009 9 5/14/87	3010 10 5/14/87
<u>VOLATILE COMPOUNDS</u> ug/l							
Acetone	2000	12000	22000	490	47000	<1000	1900
Toluene	1000	<500	<500	<25	<250	<500	98
Chlorobenzene	<500	<500	<500	<25	<250	<500	78
<u>UNKNOWN/TENATIVELY IDENTIFIED VOLATILE COMPOUNDS</u> Est. Concentrations (µg/l)							
2-Propanol	23000	1900	9600	ND	12000	43000	ND
2-Butoxyethanol	ND	ND	ND	ND	ND	ND	150
<u>SEMI-VOLATILE COMPOUNDS</u> ug/l							
Phenol	18	<10	<10	<10	<10	<10	<10
Benzyl Alcohol	[5.3]	12	<10	<10	[3]	<10	<10
Naphthalene	[9.1]	[4]	<10	<10	<10	<10	<10
N-Nitrosodiphenylamine (1)	[4.6]	<10	<10	[4]	[3]	<10	<10
Benzole Acid	<50	[23]	<50	<50	<50	<50	<50
Bis(2-Ethylhexyl) Phthalate	<10	50	27	10	17	<10	<10
1,3-Dichlorobenzene	<10	<10	<10	[4]	<10	<10	[8.7]
1,4-Dichlorobenzene	<10	<10	<10	76	<10	<10	160
1,2-Dichlorobenzene	<10	<10	<10	[4]	<10	<10	[7.0]
1,2,4-Trichlorobenzene	<10	<10	<10	41	<10	<10	46
Butyl Benzyl Phthalate	<10	<10	<10	[9]	13	<10	<10
Di-N-Butyl Phthalate	<10	<10	<10	<10	[4]	<10	<10

ND - None detected.

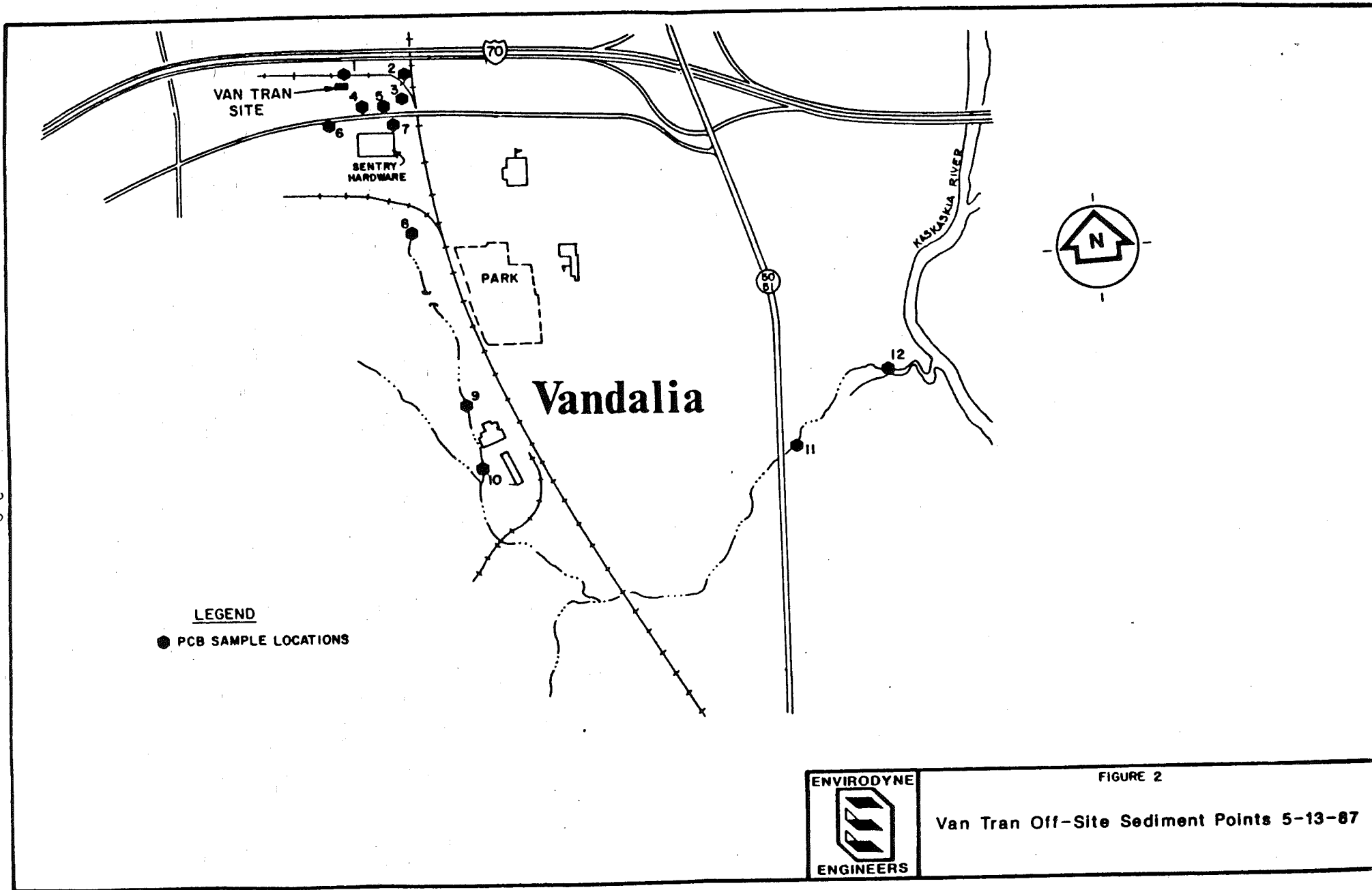
[] - Estimated value less than detection limit.

TABLE F- (continued)
 VANTRAN ELECTRIC CORPORATION
 PRELIMINARY ASSESSMENT
 SAMPLING/ANALYTICAL RESULTS
 DECONTAMINATION RINSATE

SAMPLE I.D. DRUM # DATE	3004 1 5/14/87	3005 2 5/14/87	3006 3 5/14/87	3007 8 5/14/87	3008 5 5/14/87	3009 9 5/14/87	3010 10 5/14/87
<u>UNKNOWN/TENTATIVELY IDENTIFIED SEMI-VOLATILE COMPOUNDS</u>							
Est. Concentrations (µg/l)	5.8	-	-	-	-	-	-
	66	-	-	-	-	-	-
Ethyl Benzene	35	-	-	-	-	-	-
Xylene	8.9	-	-	-	-	-	-
Xylene	5.3	-	-	-	-	-	-
2-Butoxyl Ethanol	42	18	-	-	-	-	-
Ethyl Methyl Benzene	11	-	-	-	-	-	-
Trimethyl Benzene	6.7	27	19	-	11	30	-
Trimethyl Benzene	7.5	-	-	-	-	-	-
2-Ethyl-1-Hexanol	7.7	-	-	-	-	-	-
Methyl (Methyl Ethyl) Benzene	27	-	-	-	-	-	-
Unknown Benzene	16	-	-	-	-	-	-
2-Ethyl Hexanoic Acid	18	16	22	-	14	-	-
2-(2-Butoxy Ethoxy)-Ethanol	8.3	-	-	-	-	-	-
Benzothiazole	-	-	-	-	-	-	-
4-Hydroxy-3-Methoxy-	8.4	-	-	-	-	-	-
Benzaldehyde	7.8	-	23	-	-	-	-
Dodecanoic Acid	33**	63	8.5	31**	8	84**	530
Hexadecanoic Acid	6.9	46	54**	51**	60	7.3	370
Unknown	20**	49**	72**	-	8.6	42**	1200
Unknown	12**	74**	15**	-	35	5.5**	470
Unknown	-	31	-	-	-	-	-
Unknown	-	25	-	-	-	-	-
Unknown	-	28	-	-	-	-	-
Dimethyl Benzene	-	21	16	34	14	-	-
Decane	-	15	-	-	9.1	-	-
Undecane	-	18	15	-	13	-	-
Methyl Decyl Benzene	-	43	24	42	24	-	-
Propyl Nonyl Benzene	-	16	-	-	-	-	-
Ethyl Decyl Benzene	-	15	-	-	-	-	-
Methyl Undecyl Benzene	-	15**	-	-	7.7	4.6	690
Ethylundecyl Benzene	-	26	-	-	-	4.3	610
Methyl Dodecyl Benzene	-	-	-	-	-	-	-
Unknown	-	-	-	-	-	-	-
Unknown	-	-	-	-	-	-	-

APPENDIX B

ENVIRODYNE ENGINEERS, INC., SEDIMENT SAMPLE ANALYTICAL DATA



minimum of five well casing volumes. A surging action was used to free settled sediments and loosen fines from the sand pack. All wells cleared substantially after 5-10 volumes were removed.

The liquid and sediments removed from the development of the monitor wells were collected and contained in a 55-gallon drum. This drum was stored for later disposal.

2.5 Ground Water Sample Collection

The four monitor wells were sampled by Baker/TSA on May 13, 1987, with oversight by EEI and IEPA personnel. This was approximately 2-1/2 weeks after completion of well development. A teflon bailer was used to purge and sample each well. Wells were purged of at least five well casing volumes prior to sampling. Purge water was collected and contained in a 55-gallon drum. Samples were placed in bottles provided by Gulf Coast Labs for analysis by GCL. No splits were collected by the IEPA/EEI representatives. Sample filtering and preservation was carried out immediately following collection in the Van Tran temporary office. Field measurements, including temperature, pH, and electrical conductance were measured at this time. A summary of these measurements and other well characteristics is given in Table 1.

Samples were placed in coolers and iced down after sealing each bottle with Custody seals. The cooler was then sealed and picked up by Federal Express that day for shipment to GCL for analysis. The IEPA/EEI representatives signed as witness to the custody sheets.

2.6 Sediment Sampling

Twelve sets of off-site sediment samples were collected from Town Branch Creek by EEI and IEPA personnel on May 13, 1987. Sampling locations are shown on Figure 2. These samples were analyzed for PCBs.

All samples were obtained from areas of sediment deposition. Each sample was a composite of 3 to 5 subsamples taken within a 10 foot stream reach at each sample site. All but sample No. 4 were obtained with stainless steel spoons. No. 4 was obtained with a stainless steel soil probe. Subsamples were placed in stainless steel pans and field composited with stainless steel spatulas at each site. They were placed in 32 ounce, pre-cleaned glass containers supplied through the IEPA CLP. Sites were sampled in the order 12, 11, 10, 9, 8, 1, 7, 6, 3, 2, 4, 5. Descriptions of the sites and activities follow:

Site 1. Drainage ditch along RR tracks to N of site. Light brown medium sand. Dry.

Site 2. Roadside drainage ditch to NE of site. Light brown sandy silt. Dry.

Site 3. Drainage ditch below confluence of streams from sites 1 and 2. Light brown sandy silt. Dry.

Site 4. Drainage ditch from east side of site along south side of Ray's Excavating. Light brown silt. Dry. Compacted; obtained with soil probe.

Site 5. Deposition area below confluence of 3, 4. Brown silt. Ponded water.

Site 6. Drainage ditch from west side of site to south of Van Tran Avenue. Light brown silt. Dry. Obtained from mouths of culverts under Van Tran Avenue and entry road to Purina.

Site 7. Ponded deposition area below confluence of streams from sites 5 and 6. Brown silt.

Site 8. Large alluvial fan, approximately 200 yards to north of City Park. Brown silt. Stream flowing at this point.

Site 9. Central part of City Park. Three distinctly different groups of sediments in this area - (1) brown sand with intermixed detritus in central channel, (2) brown silt on top 1 to 1-1/2" with layer of dark brown organic muck on "outsides" of meanders, bluish-gray clay with 1/4 to 1/2" of brown silt on top to "insides" of meanders. Attempted to obtain equal aliquots of each.

Site 10. South end of City Park immediately upstream from confluence of Town Branch and a residential drainage stream from the west. Brown silt.

Site 11. Immediately downstream (east) of Highway 51. Brown clayey silt.

Site 12. Approximately 100 yards to west of confluence of Town Branch and Kaskaskia River, to inside (deposition side) of meander. Bluish-gray clayey silt with conspicuous iron nodules and septic odor.

Packing and shipment of samples were carried out as described for the groundwater samples in Section 2.5.

2.7 Sample Identification Summary

Each sample collected by Baker/TSA during this site investigation was assigned a number in the following procedure. Samples 1000 thru 1004 were PCB wipe samples. Samples labelled 2000 through 2003 were surficial soil samples, and 2004 through 2053 were soil boring samples. Samples 3000 thru 3003 were ground water samples from wells MW-A, B, C and D. Samples 3004 through 3010 were from decontamination liquid in drums. The samples labelled 1 thru 12 were collected from off-site drainage locations by EEI and analyzed only for PCBs. Table 2 lists these samples in summary form.

2.8 Decontamination Procedures

All equipment (augers, split spoons, samplers, drill rods, etc.) which came in contact with the borehole was thoroughly steamed cleaned and solvent rinsed between borings. Water used during the installation and decontamination phases of this task was from the approved source.

The rinsing sequence was as follows: gross removal of cutting from tools into drums, steam cleaning of tools over a portable steel pond, rinsing with acetone, and a final steam cleaning with the approved water. All water used in the rinsing and steam cleaning was contained and stored on-site in a designated area in sealed DOT 17H/55-gallon drums.

concentration was seen for the library search compounds, including trichlorinated biphenyls, trimethyl benzenes, unknown hydrocarbons, and xylenes. PCBs were detected in this boring at levels of 72 mg/kg at the surface, gradually decreasing to 15 mg/kg at 5 feet.

Boring B (2045-2053) was found to display a similar contamination pattern as seen in Boring A. The same contaminants were detected, including 2-butanone (92 ug/kg), toluene (31 ug/kg), ethylbenzene (0.34 ug/kg), xylenes (2.6 ug/kg), but in lower concentrations. These compounds were concentrated in the 5.0-8.0 foot interval, but also found as shallow as 2.0 feet, and as deep as 11.0 feet. PCBs were detected in this boring to 8 feet. Levels were concentrated in the 1.0-5.0 foot zone with concentrations of 69 mg/kg at 1-2 feet (2046) to 30 mg/kg in the 2-5 foot zone (2047). Semivolatile library search compounds were concentrated in the 5.0 to 8.0 foot interval.

Boring C was drilled in the drainage swale at the southeast corner of the Van Tran property. It was sampled to a depth of one-foot above the estimated water table, which came to 7.0 feet below ground level. The boring was split into one-foot increments for sampling (2018-2024). Low levels of benzene, ethyl benzene, xylenes, toluene, and 1,1-dichloroethane were detected throughout the boring depth. There was no discernible decrease in concentration through depth, and concentrations of these contaminants ranged from less than 1 ug/kg to 5 ug/kg. PCB contamination at this site was significant. Very high levels of PCB-1242 and -1260 were detected from the surface to the last interval sampled (6.0-7.0'). Concentrations of PCB-1260 ranged from 2000 to 100 mg/kg, with no discernible variation in depth. The concentrations were well distributed. Concentrations of PCB-1242 were generally lower and had a trend of reducing concentrations with depth. Concentrations ranged from 210 mg/kg at the peak interval of 4.0-5.0 feet (2022) to the lowest value of 10 mg/kg in the 6.0 to 7.0 foot interval (2024).

Boring D was drilled to 7.0 feet at the southwest corner of the Van Tran property. It is represented in foot sampling increments labelled 2025-2031. There were no elevated levels of analyzed parameters detected in these samples.

3.4 Off-Site Sediment Samples

Twelve sediment samples were collected from drainage ways around the Van Tran property and the extended drainage (Town Creek) followed through town to the confluence with the Kaskaskia River. Samples 1-5 represent local drainage from the Van Tran property. The remaining samples trace this drainage to the treatment plant adjacent to the Kaskaskia River. These samples were analyzed for PCBs only.

Samples 1 and 2 showed no contamination with PCBs. Sample 3 had a level of 3.6 mg/kg. This sample represented drainage from Van Tran along the north side and possible back water flooding zones during heavy rain from the southern Van Tran drainage. Sample 4 had the highest concentrations of PCBs of the off-site samples, with 230 mg/kg of PCB-1242 and 450 mg/kg of PCB-1260. Sample 4 represented an area in front of Ray's Excavating Services, approximately 500 feet east of Boring C on Van Tran's property.

Sample 5 had lower concentrations of PCB 1260 with a concentration of 5.4 mg/kg. Sample 5 represented the confluence of streams sampled by points 3 and 4.

Sample 6 had a PCB-1260 concentration of 4.2 mg/kg. This point was chosen to represent drainage from Van Tran as it flows off site from the southeast corner of the property. Sample 7 had detectable concentrations of less than 1 mg/kg PCB-1260. This point represented the confluence of points 6 and 5.

Sample points 8 and 9 showed no detectable PCB concentrations. Point 10 had a concentration of less than 1 mg/kg of PCB-1260. Sample 11 had a PCB-1242 concentration of 11 mg/kg. This sample, however, had many other inputs to the sediment load between it and the previous point. Sample 12 had no detectable PCB concentration.

3.5 Groundwater Samples

The four monitor wells sampled by Baker/TSA and Van Tran were MW-A, MW-B, MW-C, and MW-D. These wells were constructed of stainless steel and installed according to IEPA specifications, and EEI observation. According to the analyses, only well MW-B, at the northwest corner of the property, showed indications of contamination. Toluene was detected in this well in a concentration of 10 ug/l. No other elevated levels were detected for any analyzed parameters.

Water levels were recorded for each well prior to sampling, as well as at previous times during the investigation. Table 3 summarizes the results of these readings in the form of water table depths and elevations. The measurements taken on 4/7, 4/24, 4/28 and 5/13 were done by Baker/TSA with EEI observing. The measurement on 7/30 was conducted by IEPA Collinsville field office personnel.

A surveyed map was not provided to EEI for well locations. Figures 4 and 5 show water table configurations based upon measurements on two different days. These included the sample collection date of 5/13/87, and two months later, July 30, 1987 by IEPA personnel. A general northeast component to groundwater flow is evident across the Van Tran property. There appear to be two minor inconsistencies to this pattern to note. A slight mounding condition may be evident near the north boundary of the plant caused by the gravel and sand glacial formation crossing the property at this point. Along the southern boundary, flow appears to reverse direction to the south. Since only two wells in this area were used to monitor flow, no conclusions can be made regarding this phenomenon. In either case, however, these measurements indicate general flow across the Van Tran site to be north by northeasterly and MW-D to be upgradient of the site.

APPENDIX C

IEPA 1995 SOIL SAMPLE ANALYTICAL DATA

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

X101

Lab Name: ARDL, INC.

Contract No.: 2357

Lab Code: ARDL

Case No.: 045

SAS No.:

SDG No.:

X101

Matrix (soil/water)

TCLP

Lab Sample ID:

2357-1

Level (low/med):

LOW

Date Received:

02/01/95

% Solids:

0.0

Concentration Units: (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	4.4	B		P
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	20.0	U		P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc	314			P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR

Texture:

Color After: COLORLESS Clarity After: CLEAR

Artifacts:

Comments:

INORGANIC ANALYSIS DATA SHEET

X102

Lab Name: ARDL, INC.

Contract No.: 2357

Lab Code: ARDL

Case No.: 045

SAS No.: _____

SDG No.: X101

Matrix (soil/water) TCLP

Lab Sample ID: 2357-2

Level (low/med): LOW

Date Received: 02/01/95

% Solids: 0.0

Concentration Units: (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	3.6	B		P
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	20.0	U		P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc	238			P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR

Texture:

Color After: COLORLESS Clarity After: CLEAR

Artifacts:

Comments:

INORGANIC ANALYSIS DATA SHEET

X103

Lab Name: ARDL, INC.

Contract No.: 2357

Lab Code: ARDL

Case No.: 045

SAS No.:

SDG No.:

X101

Matrix (soil/water) TCLP

Lab Sample ID: 2357-3

Level (low/med): LOW

Date Received: 02/01/95

% Solids: 0.0

Concentration Units: (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	20.0	U		P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc	185			P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR

Texture:

Color After: COLORLESS Clarity After: CLEAR

Artifacts:

Comments:

INORGANIC ANALYSIS DATA SHEET

X104

Lab Name: ARDL, INC.

Contract No.: 2357

Lab Code: ARDL

Case No.: 045

SAS No.:

SDG No.:

X101

Matrix (soil/water) TCLP

Lab Sample ID: 2357-4

Level (low/med): LOW

Date Received: 02/01/95

% Solids: 0.0

Concentration Units: (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	20.0	U		P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc	190			P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR

Texture:

Color After: COLORLESS Clarity After: CLEAR

Artifacts:

Comments:

U.S. EPA - CLP

1

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

X105

Lab Name: ARDL, INC.

Contract No.: 2357

Lab Code: ARDL

Case No.: 045

SAS No.:

SDG No.:

X101

Matrix (soil/water) TCLP

Lab Sample ID: 2357-5

Level (low/med): LOW

Date Received: 02/01/95

% Solids: 0.0

Concentration Units: (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	20.0	U		P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc	168			P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR

Texture:

Color After: COLORLESS Clarity After: CLEAR

Artifacts:

Comments:

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X101

Lab Name: ARDL, INC.

Contract: VAN TRAN ELECTRIC

Lab Code: ---

Case No.: ---

SAS No.: ---

SDG No.: X101

Matrix: (soil/water) SOIL

Lab Sample ID: 2357-1

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: >D1196

Level: (low/med) LOW

Date Received: 2/01/95

% Moisture: not dec. 11

Date Analyzed: 2/02/95

GC column: 1%SP-1000 ID: 2.0 (mm)

Dilution Factor: 1.0

Soil Extract Volume: --- (uL)

Soil Aliquot Volume: --- (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG Q

74-87-3	Chloromethane	11.	U
74-83-9	Bromomethane	11.	U
75-01-4	Vinyl Chloride	11.	U
75-00-3	Chloroethane	11.	U
75-09-2	Methylene Chloride	11.	U
67-64-1	Acetone	11.	U
75-15-0	Carbon Disulfide	11.	U
75-35-4	1,1-Dichloroethene	11.	U
75-34-3	1,1-Dichloroethane	11.	U
540-59-0	1,2-Dichloroethene (total)	11.	U
67-66-3	Chloroform	11.	U
107-06-2	1,2-Dichloroethane	11.	U
78-93-3	2-Butanone	11.	U
71-55-6	1,1,1-Trichloroethane	11.	U
56-23-5	Carbon Tetrachloride	11.	U
75-27-4	Bromodichloromethane	11.	U
78-87-5	1,2-Dichloropropane	11.	U
10061-01-5	cis-1,3-Dichloropropene	11.	U
79-01-6	Trichloroethene	11.	U
124-48-1	Dibromochloromethane	11.	U
79-00-5	1,1,2-Trichloroethane	11.	U
71-43-2	Benzene	11.	U
10061-02-6	trans-1,3-Dichloropropene	11.	U
75-25-2	Bromoform	11.	U
108-10-1	4-Methyl-2-Pentanone	11.	U
591-78-6	2-Hexanone	11.	U
127-18-4	Tetrachloroethene	11.	U
79-34-5	1,1,2,2-Tetrachloroethane	11.	U
108-88-3	Toluene	11.	U
108-90-7	Chlorobenzene	11.	U
100-41-4	Ethylbenzene	11.	U
100-42-5	Styrene	11.	U
1330-20-7	Xylene (total)	11.	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X101

Lab Name: ARDL, INC.

Contract: VAN TRAN ELECTRIC

Lab Code: ---

Case No.: ---

SAS No.: ---

SDG No.: X101

Matrix: (soil/water) SOIL

Lab Sample ID: 2357-1

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: >D1196

Level: (low/med) LOW

Date Received: 2/01/95

% Moisture: not dec. 11

Date Analyzed: 2/02/95

GC Column: 1%SP-1000 ID: 2.0 (mm)

Dilution Factor: 1.0

Soil Extract Volume: --- (uL)

Soil Aliquot Volume: --- (uL)

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	2.41	8.	J
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X102

Lab Name: ARDL, INC.

Contract: VAN TRAN ELECTRIC

Lab Code: ---

Case No.: ---

SAS No.: ---

SDG No.: X101

Matrix: (soil/water) SOIL

Lab Sample ID: 2357-2

Sample wt/vol: 1.0 (g/mL) G

Lab File ID: >D1213

Level: (low/med) LOW

Date Received: 2/01/95

% Moisture: not dec. 14

Date Analyzed: 2/03/95

GC column: 1%SP-1000 ID: 2.0 (mm)

Dilution Factor: 5.0

Soil Extract Volume: --- (uL)

Soil Aliquot Volume: --- (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	58.	U
74-83-9	Bromomethane	58.	U
75-01-4	Vinyl Chloride	58.	U
75-00-3	Chloroethane	58.	U
75-09-2	Methylene Chloride	58.	U
67-64-1	Acetone	550.	
75-15-0	Carbon Disulfide	58.	U
75-35-4	1,1-Dichloroethene	58.	U
75-34-3	1,1-Dichloroethane	58.	U
540-59-0	1,2-Dichloroethene (total)	58.	U
67-66-3	Chloroform	58.	U
107-06-2	1,2-Dichloroethane	58.	U
78-93-3	2-Butanone	560.	
71-55-6	1,1,1-Trichloroethane	58.	U
56-23-5	Carbon Tetrachloride	58.	U
75-27-4	Bromodichloromethane	58.	U
78-87-5	1,2-Dichloropropane	58.	U
10061-01-5	cis-1,3-Dichloropropene	58.	U
79-01-6	Trichloroethene	58.	U
124-48-1	Dibromochloromethane	58.	U
79-00-5	1,1,2-Trichloroethane	58.	U
71-43-2	Benzene	58.	U
10061-02-6	trans-1,3-Dichloropropene	58.	U
75-25-2	Bromoform	58.	U
108-10-1	4-Methyl-2-Pentanone	58.	U
591-78-6	2-Hexanone	58.	U
127-18-4	Tetrachloroethene	58.	U
79-34-5	1,1,2,2-Tetrachloroethane	58.	U
108-88-3	Toluene	1200.	E
108-90-7	Chlorobenzene	58.	U
100-41-4	Ethylbenzene	24.	J
100-42-5	Styrene	58.	U
1330-20-7	Xylene (total)	200.	

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X102

Lab Name: ARDL, INC. Contract: VAN TRAN ELECTRIC

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2357-2

Sample wt/vol: 1.0 (g/mL) G Lab File ID: >D1213

Level: (low/med) LOW Date Received: 2/01/95

Moisture: not dec. 14 Date Analyzed: 2/03/95

Column: 1%SP-1000 ID: 2.0 (mm) Dilution Factor: 5.0

Soil Extract Volume: --- (uL) Soil Aliquot Volume: --- (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

Number TICs found: 2

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	10.42	200.	J
	UNKNOWN	14.98	200.	J
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X102

Lab: ARDL, INC.

Contract: VAN TRAN ELECTRIC

Lab Code: ---

Case No.: ---

SAS No.: ---

SDG No.: X101

Matrix: (soil/water) SOIL

Lab Sample ID: 2357-2

Sample wt/vol: 4.0 (g/mL) G

Lab File ID: >D1262

Level: (low/med) MED

Date Received: 2/01/95

Moisture: not dec. 14

Date Analyzed: 2/08/95

GC column: 1%SP-1000 ID: 2.0 (mm)

Dilution Factor: 1.0

Soil Extract Volume: 10000.0 (uL)

Soil Aliquot Volume: 100.0 (uL)

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) UG/KG

Q

74-87-3-----	Chloromethane	1400.	U
74-83-9-----	Bromomethane	1400.	U
75-01-4-----	Vinyl Chloride	1400.	U
75-00-3-----	Chloroethane	1400.	U
75-09-2-----	Methylene Chloride	1400.	U
67-64-1-----	Acetone	1600.	
75-15-0-----	Carbon Disulfide	1400.	U
75-35-4-----	1,1-Dichloroethene	1400.	U
75-34-3-----	1,1-Dichloroethane	1400.	U
540-59-0-----	1,2-Dichloroethene (total)	1400.	U
67-66-3-----	Chloroform	1400.	U
107-06-2-----	1,2-Dichloroethane	1400.	U
78-93-3-----	2-Butanone	460.	J
71-55-6-----	1,1,1-Trichloroethane	1400.	U
56-23-5-----	Carbon Tetrachloride	1400.	U
75-27-4-----	Bromodichloromethane	1400.	U
78-87-5-----	1,2-Dichloropropane	1500.	U
10061-01-5-----	cis-1,3-Dichloropropene	1400.	U
79-01-6-----	Trichloroethene	1400.	U
124-48-1-----	Dibromochloromethane	1400.	U
79-00-5-----	1,1,2-Trichloroethane	1400.	U
71-43-2-----	Benzene	1400.	U
10061-02-6-----	trans-1,3-Dichloropropene	1400.	U
75-25-2-----	Bromoform	1400.	U
108-10-1-----	4-Methyl-2-Pentanone	1400.	U
591-78-6-----	2-Hexanone	1400.	U
27-18-4-----	Tetrachloroethene	1400.	U
9-34-5-----	1,1,2,2-Tetrachloroethane	1400.	U
108-88-3-----	Toluene	1400.	J
108-90-7-----	Chlorobenzene	1400.	U
100-41-4-----	Ethylbenzene	1400.	U
100-42-5-----	Styrene	1400.	U
1330-20-7-----	Xylene (total)	2200.	

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X102

Lab Name: ARDL, INC. Contract: VAN TRAN ELECTRIC

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2357-2

Sample wt/vol: 4.0 (g/mL) G Lab File ID: >D1162

Level: (low/med) MED Date Received: 2/01/95

% Moisture: not dec. 14 Date Analyzed: 2/08/95

GC Column: 1%SP-1000 ID: 2.0 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000.0 (uL) Soil Aliquot Volume: 100.0 (uL)

Number TICs found: 2 CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	2.37	900.	J
	UNKNOWN	11.86	2000.	J B
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X103

Lab Name: ARDL, INC.

Contract: VAN TRAN ELECTRIC

Lab Code: ---

Case No.: ---

SAS No.: ---

SDG No.: X101

Matrix: (soil/water) SOIL

Lab Sample ID: 2357-3

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: >D1252

Level: (low/med) LOW

Date Received: 2/01/95

% Moisture: not dec. 12

Date Analyzed: 2/07/95

GC column: 1%SP-1000 ID: 2.0 (mm)

Dilution Factor: 1.0

Soil Extract Volume: --- (uL)

Soil Aliquot Volume: --- (uL)

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) UG/KG

Q

74-87-3-----	Chloromethane	11.	U	
74-83-9-----	Bromomethane	11.	U	
75-01-4-----	Vinyl Chloride	11.	U	
75-00-3-----	Chloroethane	11.	U	
75-09-2-----	Methylene Chloride	11.	U	
67-64-1-----	Acetone	2800.		E
75-15-0-----	Carbon Disulfide	11.	U	
75-35-4-----	1,1-Dichloroethene	11.	U	
75-34-3-----	1,1-Dichloroethane	11.	U	
540-59-0-----	1,2-Dichloroethene (total)	11.	U	
67-66-3-----	Chloroform	11.	U	
107-06-2-----	1,2-Dichloroethane	11.	U	
78-93-3-----	2-Butanone	840.		E
71-55-6-----	1,1,1-Trichloroethane	11.	U	
56-23-5-----	Carbon Tetrachloride	11.	U	
75-27-4-----	Bromodichloromethane	11.	U	
78-87-5-----	1,2-Dichloropropane	11.	U	
10061-01-5-----	cis-1,3-Dichloropropene	11.	U	
79-01-6-----	Trichloroethene	11.	U	
124-48-1-----	Dibromochloromethane	11.	U	
79-00-5-----	1,1,2-Trichloroethane	11.	U	
71-43-2-----	Benzene	11.	U	
10061-02-6-----	trans-1,3-Dichloropropene	11.	U	
75-25-2-----	Bromoform	11.	U	
108-10-1-----	4-Methyl-2-Pentanone	34.		
591-78-6-----	2-Hexanone	62.		
127-18-4-----	Tetrachloroethene	11.	U	
79-34-5-----	1,1,2,2-Tetrachloroethane	11.	U	
108-88-3-----	Toluene	35.		
108-90-7-----	Chlorobenzene	11.	U	
100-41-4-----	Ethylbenzene	11.	U	
100-42-5-----	Styrene	11.	U	
1330-20-7-----	Xylene (total)	11.	U	

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X103

Lab Name: ARDL, INC.

Contract: VAN TRAN ELECTRIC

Lab Code: ---

Case No.: ---

SAS No.: ---

SDG No.: X101

Matrix: (soil/water) SOIL

Lab Sample ID: 2357-3

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: >D1252

Level: (low/med) LOW

Date Received: 2/01/95

% Moisture: not dec. 12

Date Analyzed: 2/07/95

GC Column: 1%SP-1000 ID: 2.0 (mm)

Dilution Factor: 1.0

Soil Extract Volume: --- (uL)

Soil Aliquot Volume: --- (uL)

Number TICs found: 10

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	7.55	20.	J
	UNKNOWN	10.58	300.	J
3.	UNKNOWN	14.36	30.	J
4.	UNKNOWN	14.73	30.	J
5.	UNKNOWN	15.00	500.	J
6.	UNKNOWN	18.51	50.	J
7.	UNKNOWN	18.92	400.	J
8.	UNKNOWN	19.90	20.	J
9. 110430	2-HEPTANONE	28.47	400.	JN
10.	UNKNOWN	29.29	20.	J
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X103

Lab Name: ARDL, INC.

Contract: VAN TRAN ELECTRIC

Lab Code: ---

Case No.: ---

SAS No.: ---

SDG No.: X101

Matrix: (soil/water) SOIL

Lab Sample ID: 2357-3

Sample wt/vol: 4.0 (g/mL) G

Lab File ID: >D1263

Level: (low/med) MED

Date Received: 2/01/95

Moisture: not dec. 12

Date Analyzed: 2/08/95

GC column: 1%SP-1000 ID: 2.0 (mm)

Dilution Factor: 1.0

Soil Extract Volume: 10000.0 (uL)

Soil Aliquot Volume: 100.0 (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	1400.	U
74-83-9	Bromomethane	1400.	U
75-01-4	Vinyl Chloride	1400.	U
75-00-3	Chloroethane	1400.	U
75-09-2	Methylene Chloride	1400.	U
67-64-1	Acetone	5600.	
75-15-0	Carbon Disulfide	1400.	U
75-35-4	1,1-Dichloroethene	1400.	U
75-34-3	1,1-Dichloroethane	1400.	U
540-59-0	1,2-Dichloroethene (total)	1400.	U
67-66-3	Chloroform	1400.	U
107-06-2	1,2-Dichloroethane	1400.	U
78-93-3	2-Butanone	5100.	
71-55-6	1,1,1-Trichloroethane	1400.	U
56-23-5	Carbon Tetrachloride	1400.	U
75-27-4	Bromodichloromethane	1400.	U
78-87-5	1,2-Dichloropropane	1400.	U
10061-01-5	cis-1,3-Dichloropropene	1400.	U
79-01-6	Trichloroethene	1400.	U
124-48-1	Dibromochloromethane	1400.	U
79-00-5	1,1,2-Trichloroethane	1400.	U
71-43-2	Benzene	1400.	U
10061-02-6	trans-1,3-Dichloropropene	1400.	U
75-25-2	Bromoform	1400.	U
108-10-1	4-Methyl-2-Pentanone	1400.	U
591-78-6	2-Hexanone	1400.	U
127-18-4	Tetrachloroethene	1400.	U
79-34-5	1,1,2,2-Tetrachloroethane	1400.	U
108-88-3	Toluene	1400.	U
108-90-7	Chlorobenzene	1400.	U
100-41-4	Ethylbenzene	1400.	U
100-42-5	Styrene	1400.	U
1330-20-7	Xylene (total)	1400.	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X103

Lab Name: ARDL, INC.

Contract: VAN TRAN ELECTRIC

Lab Code: ---

Case No.: ---

SAS No.: ---

SDG No.: X101

Matrix: (soil/water) SOIL

Lab Sample ID: 2357-3

Sample wt/vol: 4.0 (g/mL) G

Lab File ID: >D1163

Level: (low/med) MED

Date Received: 2/01/95

Moisture: not dec. 12

Date Analyzed: 2/08/95

GC Column: 1%SP-1000 ID: 2.0 (mm)

Dilution Factor: 1.0

Soil Extract Volume: 10000.0 (uL)

Soil Aliquot Volume: 100.0 (uL)

Number TICs found: 3

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	8.43	1000.	J
	UNKNOWN	11.84	1000.	J B
	UNKNOWN	33.27	800.	J
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X104

Lab Name: ARDL, INC.

Contract: VAN TRAN ELECTRIC

Lab Code: ---

Case No.: ---

SAS No.: ---

SDG No.: X101

Matrix: (soil/water) SOIL

Lab Sample ID: 2357-4

Sample wt/vol: 1.0 (g/mL) G

Lab File ID: >D1217

Level: (low/med) LOW

Date Received: 2/01/95

% Moisture: not dec. 13

Date Analyzed: 2/03/95

GC column: 1%SP-1000 ID: 2.0 (mm)

Dilution Factor: 5.0

Soil Extract Volume: --- (uL)

Soil Aliquot Volume: --- (uL)

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) UG/KG

Q

74-87-3	Chloromethane	57.	U
74-83-9	Bromomethane	57.	U
75-01-4	Vinyl Chloride	57.	U
75-00-3	Chloroethane	57.	U
75-09-2	Methylene Chloride	57.	U
67-64-1	Acetone	560.	
75-15-0	Carbon Disulfide	57.	U
75-35-4	1,1-Dichloroethene	57.	U
75-34-3	1,1-Dichloroethane	57.	U
540-59-0	1,2-Dichloroethene (total)	57.	U
67-66-3	Chloroform	57.	U
107-06-2	1,2-Dichloroethane	57.	U
78-93-3	2-Butanone	210.	
71-55-6	1,1,1-Trichloroethane	57.	U
56-23-5	Carbon Tetrachloride	57.	U
75-27-4	Bromodichloromethane	57.	U
78-87-5	1,2-Dichloropropane	57.	U
10061-01-5	cis-1,3-Dichloropropene	57.	U
79-01-6	Trichloroethene	57.	U
124-48-1	Dibromochloromethane	57.	U
79-00-5	1,1,2-Trichloroethane	57.	U
71-43-2	Benzene	57.	U
10061-02-6	trans-1,3-Dichloropropene	57.	U
75-25-2	Bromoform	57.	U
108-10-1	4-Methyl-2-Pentanone	57.	U
591-78-6	2-Hexanone	57.	U
127-18-4	Tetrachloroethene	57.	U
79-34-5	1,1,2,2-Tetrachloroethane	57.	U
108-88-3	Toluene	57.	U
108-90-7	Chlorobenzene	57.	U
100-41-4	Ethylbenzene	57.	U
100-42-5	Styrene	57.	U
1330-20-7	Xylene (total)	57.	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X104

Lab Name: ARDL, INC.

Contract: VAN TRAN ELECTRIC

Lab Code: ---

Case No.: ---

SAS No.: ---

SDG No.: X101

Matrix: (soil/water) SOIL

Lab Sample ID: 2357-4

Sample wt/vol: 1.0 (g/mL) G

Lab File ID: >D1217

Level: (low/med) LOW

Date Received: 2/01/95

% Moisture: not dec. 13

Date Analyzed: 2/03/95

GC Column: 1%SP-1000 ID: 2.0 (mm)

Dilution Factor: 5.0

Soil Extract Volume: --- (uL)

Soil Aliquot Volume: --- (uL)

Number TICs found: 2

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	10.49	60.	J
2.	UNKNOWN	15.00	60.	J
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X105

Lab Name: ARDL, INC.

Contract: VAN TRAN ELECTRIC

Lab Code: ---

Case No.: ---

SAS No.: ---

SDG No.: X101

Matrix: (soil/water) SOIL

Lab Sample ID: 2357-5

Sample wt/vol: 4.0 (g/mL) G

Lab File ID: >D1268

Level: (low/med) MED

Date Received: 2/01/95

Moisture: not dec. 13

Date Analyzed: 2/08/95

GC column: 1%SP-1000 ID: 2.0 (mm)

Dilution Factor: 100.0

Soil Extract Volume: 10000.0 (uL)

Soil Aliquot Volume: 1.0 (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	140000.	U
74-83-9	Bromomethane	140000.	U
75-01-4	Vinyl Chloride	140000.	U
75-00-3	Chloroethane	140000.	U
75-09-2	Methylene Chloride	140000.	U
67-64-1	Acetone	100000.	J
75-15-0	Carbon Disulfide	140000.	U
75-35-4	1,1-Dichloroethene	140000.	U
75-34-3	1,1-Dichloroethane	140000.	U
540-59-0	1,2-Dichloroethene (total)	140000.	U
67-66-3	Chloroform	140000.	U
107-06-2	1,2-Dichloroethane	140000.	U
78-93-3	2-Butanone	140000.	U
71-55-6	1,1,1-Trichloroethane	140000.	U
56-23-5	Carbon Tetrachloride	140000.	U
75-27-4	Bromodichloromethane	140000.	U
78-87-5	1,2-Dichloropropane	140000.	U
10061-01-5	cis-1,3-Dichloropropene	140000.	U
79-01-6	Trichloroethene	140000.	U
124-48-1	Dibromochloromethane	140000.	U
79-00-5	1,1,2-Trichloroethane	140000.	U
71-43-2	Benzene	140000.	U
10061-02-6	trans-1,3-Dichloropropene	140000.	U
75-25-2	Bromoform	140000.	U
108-10-1	4-Methyl-2-Pentanone	140000.	U
591-78-6	2-Hexanone	140000.	U
127-18-4	Tetrachloroethene	140000.	U
79-34-5	1,1,2,2-Tetrachloroethane	140000.	U
108-88-3	Toluene	2800000.	
108-90-7	Chlorobenzene	140000.	U
100-41-4	Ethylbenzene	95000.	J
100-42-5	Styrene	140000.	U
1330-20-7	Xylene (total)	520000.	

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X105

Lab Name: ARDL, INC. Contract: VAN TRAN ELECTRIC

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2357-5

Sample wt/vol: 4.0 (g/mL) G Lab File ID: >D1168

Level: (low/med) MED Date Received: 2/01/95

% Moisture: not dec. 13 Date Analyzed: 2/08/95

GC Column: 1%SP-1000 ID: 2.0 (mm) Dilution Factor: 100.0

Soil Extract Volume: 10000.0 (uL) Soil Aliquot Volume: 1.0 (uL)

Number TICs found: 3

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	11.78	70000.	J B
2.	BENZENE, ETHYL-METHYL-	27.15	600000.	J
3.	UNKNOWN	33.55	800000.	J
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X101

Lab Name: ARDL, INC.	Contract: VAN TRAN ELECTRIC
Lab Code: Case No.: 2357	SDG No.: X101
Matrix(soil/water) : SOIL	Lab Sample ID : 2357-1
Sample(wt/vol) : 30.0 (g/mL) g	Lab File ID :
% Moisture: 11 decanted:(Y/N) N	Date Received : 02/01/95
Extraction(Sepf/Cont/Sonc) SONC	Date Extracted : 02/08/95
Concentrated Extract Volume:5000(uL)	Date Analyzed : 02/20/95
Injection Volume: 1 (uL)	Dilution Factor: 1.0
GPC Cleanup:(Y/N) Y	Sulfur Cleanup : N
pH: 6.9	

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/Kg	Q
---------	----------	-----------------	-------	---

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/Kg	Q
319-84-6-----	alpha-BHC	1.9	U	
319-85-7-----	beta-BHC	1.9	U	
319-86-8-----	delta-BHC	1.9	U	
58-89-9-----	gamma-BHC(Lindane)	1.9	U	
76-44-8-----	Heptachlor	1.9	U	
309-00-2-----	Aldrin	1.9	U	
1024-57-3-----	Heptachlor Epoxide	1.9	U	
959-98-8-----	Endosulfan I	1.9	U	
60-57-1-----	Dieldrin	3.7	U	
72-55-9-----	4,4'-DDE	3.7	U	
72-20-8-----	Endrin	3.7	U	
33213-65-9----	Endosulfan II	3.7	U	
72-54-8-----	4,4'-DDD	3.7	U	
1013-07-8-----	Endosulfan sulfate	3.7	U	
50-29-3-----	4,4'-DDT	3.7	U	
72-43-5-----	Methoxychlor	19	U	
53494-70-5----	Endrin ketone	3.7	U	
7421-36-3-----	Endrin aldehyde	3.7	U	
5103-71-9-----	alpha-Chlordane	1.9	U	
5103-74-2-----	gamma-Chlordane	1.9	U	
8001-35-2-----	Toxaphene	190	U	
12674-11-2----	Aroclor 1016	37	U	
11104-28-2----	Aroclor 1221	75	U	
11141-16-5----	Aroclor 1232	37	U	
53469-21-9----	Aroclor 1242	37	U	
12672-29-6----	Aroclor 1248	37	U	
11097-69-1----	Aroclor 1254	37	U	
11096-82-5----	Aroclor 1260	37	U	

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X102

Lab Name: ARDL, INC.	Contract: VAN TRAN ELECTRIC
Lab Code: Case No.: 2357	SDG No.: X101
Matrix(soil/water) : SOIL	Lab Sample ID : 2357-2
Sample(wt/vol) : 30.0 (g/mL) g	Lab File ID :
% Moisture: 14 decanted:(Y/N) N	Date Received : 02/01/95
Extraction(Sepf/Cont/Sonc) SONC	Date Extracted : 02/08/95
Concentrated Extract Volume:5000(uL)	Date Analyzed : 02/20/95
Injection Volume: 1 (uL)	Dilution Factor: 1.0
GPC Cleanup:(Y/N) Y	Sulfur Cleanup : N
pH: 7.3	

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/Kg	Q
---------	----------	-----------------	-------	---

319-84-6-----alpha-BHC	2.0	U
319-85-7-----beta-BHC	2.0	U
319-86-8-----delta-BHC	2.0	U
58-89-9-----gamma-BHC(Lindane)	2.0	U
76-44-8-----Heptachlor	2.0	U
309-00-2-----Aldrin	2.0	U
1024-57-3-----Heptachlor Epoxide	2.0	U
959-98-8-----Endosulfan I	2.0	U
60-57-1-----Dieldrin	3.8	U
72-55-9-----4,4'-DDE	3.8	U
72-20-8-----Endrin	3.8	U
33213-65-9----Endosulfan II	3.8	U
72-54-8-----4,4'-DDD	3.8	U
1013-07-8-----Endosulfan sulfate	3.8	U
50-29-3-----4,4'-DDT	3.8	U
72-43-5-----Methoxychlor	20	U
53494-70-5----Endrin ketone	3.8	U
7421-36-3-----Endrin aldehyde	3.8	U
5103-71-9-----alpha-Chlordane	2.0	U
5103-74-2-----gamma-Chlordane	2.0	U
8001-35-2-----Toxaphene	200	U
12674-11-2----Aroclor 1016	38	U
11104-28-2----Aroclor 1221	78	U
11141-16-5----Aroclor 1232	38	U
53469-21-9----Aroclor 1242	38	U
12672-29-6----Aroclor 1248	38	U
11097-69-1----Aroclor 1254	38	U
11096-82-5----Aroclor 1260	38	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X103

Lab Name: ARDL, INC.	Contract: VAN TRAN ELECTRIC
Lab Code: Case No.: 2357	SDG No.: X101
Matrix(soil/water) : SOIL	Lab Sample ID : 2357-3
Sample(wt/vol) : 30.0 (g/mL) g	Lab File ID :
% Moisture: 12 decanted:(Y/N) N	Date Received : 02/01/95
Extraction(Sepf/Cont/Sonc) SONC	Date Extracted : 02/08/95
Concentrated Extract Volume:5000(uL)	Date Analyzed : 02/20/95
Injection Volume: 1 (uL)	Dilution Factor: 1.0
GPC Cleanup:(Y/N) Y	Sulfur Cleanup : N
pH: 7.1	

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/Kg	Q
---------	----------	-----------------	-------	---

319-84-6-----alpha-BHC	1.9	U
319-85-7-----beta-BHC	1.9	U
319-86-8-----delta-BHC	1.9	U
58-89-9-----gamma-BHC(Lindane)	1.9	U
76-44-8-----Heptachlor	1.9	U
309-00-2-----Aldrin	1.9	U
1024-57-3-----Heptachlor Epoxide	1.9	U
959-98-8-----Endosulfan I	1.9	U
60-57-1-----Dieldrin	3.8	U
72-55-9-----4,4'-DDE	3.8	U
72-20-8-----Endrin	3.8	U
33213-65-9-----Endosulfan II	3.8	U
72-54-8-----4,4'-DDD	3.8	U
1013-07-8-----Endosulfan sulfate	3.8	U
50-29-3-----4,4'-DDT	3.8	U
72-43-5-----Methoxychlor	19	U
53494-70-5-----Endrin ketone	3.8	U
7421-36-3-----Endrin aldehyde	3.8	U
5103-71-9-----alpha-Chlordane	1.9	U
5103-74-2-----gamma-Chlordane	1.9	U
8001-35-2-----Toxaphene	190	U
12674-11-2-----Aroclor 1016	38	U
11104-28-2-----Aroclor 1221	76	U
11141-16-5-----Aroclor 1232	38	U
53469-21-9-----Aroclor 1242	38	U
12672-29-6-----Aroclor 1248	38	U
11097-69-1-----Aroclor 1254	38	U
11096-82-5-----Aroclor 1260	38	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X104

Lab Name: ARDL, INC.	Contract: VAN TRAN ELECTRIC
Lab Code: Case No.: 2357	SDG No.: X101
Matrix(soil/water) : SOIL	Lab Sample ID : 2357-4
Sample(wt/vol) : 30.0 (g/mL) g	Lab File ID :
% Moisture: 13 decanted:(Y/N) N	Date Received : 02/01/95
Extraction(Sepf/Cont/Sonc) SONC	Date Extracted : 02/08/95
Concentrated Extract Volume:5000(uL)	Date Analyzed : 02/20/95
Injection Volume: 1 (uL)	Dilution Factor: 1.0
GPC Cleanup:(Y/N) Y	Sulfur Cleanup : N
pH: 7.6	

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/Kg Q

319-84-6-----alpha-BHC	2.0	U
319-85-7-----beta-BHC	2.0	U
319-86-8-----delta-BHC	2.0	U
58-89-9-----gamma-BHC(Lindane)	2.0	U
76-44-8-----Heptachlor	2.0	U
309-00-2-----Aldrin	2.0	U
1024-57-3-----Heptachlor Epoxide	2.0	U
959-98-8-----Endosulfan I	2.0	U
60-57-1-----Dieldrin	3.8	U
72-55-9-----4,4'-DDE	3.8	U
72-20-8-----Endrin	3.8	U
33213-65-9----Endosulfan II	3.8	U
72-54-8-----4,4'-DDD	3.8	U
1013-07-8-----Endosulfan sulfate	3.8	U
50-29-3-----4,4'-DDT	3.8	U
72-43-5-----Methoxychlor	20	U
53494-70-5----Endrin ketone	3.8	U
7421-36-3-----Endrin aldehyde	3.8	U
5103-71-9-----alpha-Chlordane	2.0	U
5103-74-2-----gamma-Chlordane	2.0	U
8001-35-2-----Toxaphene	200	U
12674-11-2----Aroclor 1016	38	U
11104-28-2----Aroclor 1221	77	U
11141-16-5----Aroclor 1232	38	U
53469-21-9----Aroclor 1242	38	U
12672-29-6----Aroclor 1248	38	U
11097-69-1----Aroclor 1254	38	U
11096-82-5----Aroclor 1260	38	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X105

Lab Name: ARDL, INC.	Contract: VAN TRAN ELECTRIC
Lab Code: Case No.: 2357	SDG No.: X101
Matrix(soil/water) : SOIL	Lab Sample ID : 2357-5
Sample(wt/vol) : 30.0 (g/mL) g	Lab File ID :
% Moisture: 13 decanted:(Y/N) N	Date Received : 02/01/95
Extraction(Sepf/Cont/Sonc) SONC	Date Extracted : 02/08/95
Concentrated Extract Volume:5000(uL)	Date Analyzed : 02/20/95
Injection Volume: 1 (uL)	Dilution Factor: 1.0
GPC Cleanup:(Y/N) Y	pH: 7.6 Sulfur Cleanup : N

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/Kg	Q
319-84-6-----	alpha-BHC	2.0	U	
319-85-7-----	beta-BHC	2.0	U	
319-86-8-----	delta-BHC	2.0	U	
58-89-9-----	gamma-BHC(Lindane)	2.0	U	
76-44-8-----	Heptachlor	2.0	U	
309-00-2-----	Aldrin	2.0	U	
1024-57-3-----	Heptachlor Epoxide	2.0	U	
959-98-8-----	Endosulfan I	2.0	U	
60-57-1-----	Dieldrin	3.8	U	
72-55-9-----	4,4'-DDE	3.8	U	
72-20-8-----	Endrin	3.8	U	
33213-65-9----	Endosulfan II	3.8	U	
72-54-8-----	4,4'-DDD	3.8	U	
1013-07-8-----	Endosulfan sulfate	3.8	U	
50-29-3-----	4,4'-DDT	3.8	U	
72-43-5-----	Methoxychlor	20	U	
53494-70-5-----	Endrin ketone	3.8	U	
7421-36-3-----	Endrin aldehyde	3.8	U	
5103-71-9-----	alpha-Chlordane	2.0	U	
5103-74-2-----	gamma-Chlordane	2.0	U	
8001-35-2-----	Toxaphene	200	U	
12674-11-2-----	Aroclor 1016	38	U	
11104-28-2-----	Aroclor 1221	77	U	
11141-16-5-----	Aroclor 1232	38	U	
53469-21-9-----	Aroclor 1242	6000	P	
12672-29-6-----	Aroclor 1248	38	U	
11097-69-1-----	Aroclor 1254	38	U	
11096-82-5-----	Aroclor 1260	38	U	


APPENDIX D

REFERENCE MATERIALS

CONTACT REPORT

Telephone

Contact's Name: Gail Battas
Title: Environmental Protection Specialist
Organization: Illinois Environmental Protection Agency
Phone #: (618) 346-5120
Address: Collinsville, IL

Contacted by Whom: JL Billington 
Date: 5 September 1995
Time: 4:10 PM
RE: REGION V FSIP, Van Tran Site

G. Battas was contacted by JLB to clarify whether or not the City of Vandalia's water system supplied drinking water to persons residing outside the corporate limits of Vandalia. G. Battas indicated that she did not know the exact boundaries of service; however, the water system does serve the Vandalia Correctional Center north of Vandalia.

CONTACT REPORT

Telephone

Contact's Name: Lynn Dunaway
Title: Environmental Protection Specialist
Organization: IEPA Division of Public Water Supplies
Phone #: (217) 785-2762
Address: Springfield, IL

Contacted by Whom: JL Billington *JLB*
Date: 30 August 1995
Time: 11:40 AM
RE: REGION V FSIP, Van Tran Electric Corp. site

L. Dunaway was contacted by JLB to determine the water distribution information for the city of Vandalia and for a 4-mile radius surrounding the Van Tran site. L. Dunaway indicated that there are no municipal groundwater wells that service Vandalia, rather, there are two surface water intakes.

One surface water intake is on the Kaskaskia River and it is located at the point where Rt. 51 meets the Kaskaskia River on the eastern side of Vandalia. The second surface water intake is located on Lake Vandalia at an impoundment on Bear Creek. These surface water intakes service approximately 6,100 persons.

L. Dunaway did not have any information concerning the boundaries of the water distribution or about private wells in the area. However, he did recommend Merl King as the next contact person at (217) 786-6892.

CONTACT REPORT

Telephone

Contact's Name: Todd Gross
Title: Project Manager, Van Tran site
Organization: Illinois Environmental Protection Agency
Phone #: (217) 782-6760
Address: Springfield, IL

JLB

Contacted by Whom: JL Billington
Date: 1 September 1995
Time: 11:30 AM
RE: REGION V FSIP, Van Tran Site

T. Gross was contacted by JLB to fill in some data gaps in the Van Tran FSIP files. T. Gross stated that the Van Tran site is not fenced, however, there is a fence surrounding the evaporation pit that restricts access to the pit. The site is very well vegetated, but there is very little paving on site. The nearest private residence is located 1 mile from the site.

T. Gross indicated that IEPA intends to remove an additional 9 cubic yards of soil that has been determined to contain residual contamination from the evaporation pit. Then, IEPA intends to designate the evaporation pit remediation complete and backfill the area with clean soil.

T. Gross indicated that any PCB contamination found in sediment samples is not directly attributable to the Van Tran site. T. Gross will send topographic information via fax.

CONTACT REPORT

Telephone

Contact's Name: Todd Gross
Title: Remedial Project Manager, Van Tran site
Organization: Illinois Environmental Protection Agency
Phone #: (217) 782-6760
Address: Springfield, IL

Contacted by Whom: JL Billington *JLB*
Date: 10 August 1995
Time: 10:30 AM
RE: REGION V FSIP, Van Tran Site

JLB contacted T. Gross to determine whether there has been any additional work on the Van Tran site since 1989. T. Gross stated that IEPA has been working on eliminating the storage areas on site.

The first storage area is the evaporation pit and the second storage area is the shed where drums have been stored. In the summer of 1994 IEPA began the excavation of the evaporation pit. In August 1995 the excavation is nearly completed with little residual contamination remaining. T. Gross intends to backfill the area.

In the summer of 1994 IEPA also began the removal of drums stored in a shed (they had been placed there in a midnight storage situation. Cleanup of the drums was completed in June 1995, and wipe samples were collected for PCBs.

Two rounds of groundwater sampling have been conducted. There was one hit of BTEX contaminants in a well near the evaporation pit.

All information must be obtained through a FOIA request. T. Gross indicated that he feels that IEPA will soon conclude their work on the site.

FOIA request to: Diana Gobelman
Fax: (217) 782-9290, Phone: (217) 785-4430